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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

DONALD R. CAMERON, a California resident; and
PURE SWEAT BASKETBALL, INC., an Illinois
corporation, on behalf of themselves and all others
similarly situated,

Plaintiffs,

v.

APPLE INC., a California corporation,

Defendant.

No.

CLASS ACTION COMPLAINT

**COMPLAINT FOR VIOLATION OF THE
SHERMAN ACT AND CALIFORNIA
UNFAIR COMPETITION LAW**

JURY TRIAL DEMANDED

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For their complaint against defendant Apple Inc. (Apple), plaintiffs, on their own behalf and on behalf of all others similarly situated, allege as follows:

I. INTRODUCTION

1. Plaintiffs Donald R. Cameron and Pure Sweat Basketball, Inc., are application developers for the iPhone, a device powered by Apple’s iOS operating system. iOS developers create the applications and in-app products that bring Apple iPhones, iPads, and iPod touch music players to life. Their apps allow users to play games while on line at the grocery store, to edit documents, to make exercise more fun, to help meditate, and so much more.

Apple’s abusive monopoly in iOS app/in-app distribution services

2. Plaintiffs and their fellow iOS developers sell their iOS apps via Apple’s App Store. They have no choice in the matter, but not because Apple built an app store that beat all comers fair and square. Instead, from the outset, Apple attained monopoly power in the U.S. market for iOS app and in-app-product¹ distribution services² by slamming the door shut on any and all potential competitors. And it has barred the door ever since. On the thinnest of pretenses—that somehow it is uniquely qualified to ensure the safety and device-compatibility of apps³—Apple has never permitted

¹ Throughout, in-app products also refer to subscriptions, though at times plaintiffs break out these terms for clarity. In-app products might include, for example, paid virtual implements that a consumer buys in a game that is nominally free. Subscriptions might include changing or updated content delivered through an app for a periodic fee. Here, both products can be paid via the Apple Store, and if they are, then Apple collects a fee or commission as alleged herein. (*See, e.g.* n.6, *infra* (referring to Apple explanations on its website).)

² Alternatively, as alleged herein, Apple is a *de facto* monopsonist given its status as the sole retailer of the app developers’ products.

³ *See, e.g.*, “Submitting iOS apps to the App Store,” available at: <https://developer.apple.com/ios/submit/> (“The App Store is designed to provide customers with apps that work seamlessly with their device’s capabilities.”) (last accessed June 3, 2019); Brief of Petitioner Apple Inc., submitted to the U.S. Supreme Court in *Apple Inc. v. Pepper*, Aug. 10, 2018, Sup. Ct. No. 17-204 (Apple Sup. Ct. Pet. Br.), at 7 (“Apple designed, from the ground up, an ecosystem for the use, development, sale, and distribution of apps. That ecosystem has two relevant features: (1) iPhones will only download third party software that Apple has reviewed for malware and offensive content, among other things, and (2) to distribute those third party apps, Apple created a new kind of software distribution platform, the App Store.”).

1 anyone else to distribute apps and related digital products⁴ to the many millions of U.S. owners of its
2 mobile devices.

3 3. Further, Apple's market power has allowed it to charge developers a supra-
4 competitive 30% commission on the sale of paid apps and in-app products *for almost 11 years now*,
5 despite the inevitable accrual of experience and economies of scale. Additionally, it collects a \$99
6 annual fee from all developers who wish (and must) sell their products through the App Store. Apple
7 also dictates minimum and greater price points, which prevent developers from offering paid
8 products at less than \$.99 or at price points ending in anything other than \$.99. And so, while Apple
9 is fond of pointing to impressive-sounding sales numbers and dollars earned by developers,
10 nonetheless, its exorbitant fee for distribution (or retail sales) services, coupled with its \$99 annual
11 fee and pricing mandates, have cut unlawfully into what would have been developers' earnings in a
12 competitive landscape.

13 4. Also, Apple's overly expensive 30% commission, its \$99 annual developer fee, and
14 its pricing mandate have depressed output of paid app and in-app-product transactions. The
15 consumer apps marketplace, which gives rise to the sale of Apple's distribution or retail-sales
16 services to iOS developers, resoundingly favors low-priced or free apps.⁵ Developers and would-be
17 developers, who can only earn 70% on the dollar on each paid app or product, in addition to paying
18 \$99 annually to gain entry to the App Store, undoubtedly think very hard about whether to spend the
19 effort, time, and energy that is required to design and program an app or related product, bring it to
20 market in the single store available, and hope to recoup costs and make a reasonable profit. For
21 many, the calculus makes no economic sense. This process, which is ongoing, leads to less output in
22 sales, and ergo, distribution transactions.

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25 ⁴ Those few who have tried have had to use unsanctioned workarounds, some of which required
26 the owners to jailbreak their devices and lose warranty coverage and support in the process. (See,
27 e.g., "Cydia closes purchases for its iOS jailbreak store," *The Verge*, Dec. 16, 2018, available at:
<https://www.theverge.com/2018/12/16/18143422/cydia-disables-in-app-purchases-ios-jailbreak-store-apple-iphone> (last accessed June 2, 2019).)

28 ⁵ See n.55, *infra*.

5. But for those who nonetheless soldier on towards offering paid products in the App Store, they face yet another output-depressing scenario: the sheer number of apps in the App Store, together with the number of new weekly entrants,⁶ means that most apps and in-app products will never be discovered by consumers. Because there are *so many* apps available in the *one* iOS App Store that exists, due to Apple's usurpation of the entire marketplace, huge numbers of apps necessarily get lost. Apps buried among the 2 million+ available apps⁷ do not sell because no one sees them, leading to less distribution transactions for apps and in-app products. If Apple did not shut out all competition from access to iOS device owners, there would be more stores that could feature more apps, as well as stores that would specialize in certain kinds of apps. Overall, this would boost output in and sale distribution transactions because more apps could be featured, such that more buyers would see and buy them. The only solution for this output-depressing condition is to allow other providers of distribution services, including those who undoubtedly would specialize in certain kinds of apps, to compete for app and in-app product sales to iOS consumers. More exposure for more apps would mean more transactions. And relatedly, with competition, Apple and other market entrants would be incentivized to innovate in developing better technology to pair users with the applications that they are looking for and need.

Alternatively: Apple's abusive monopsony in iOS app/in-app retailing

6. There is another way to view Apple's acquisition and abuse of anti-competitive market power. Alternatively, by way of the same anti-competitive conduct described above, Apple has improperly attained and exercised monopsony power—buy-side monopoly power⁸—as the sole

⁶ According to a piece recently published by Apple at its website, it reviews an astounding “100k” apps *weekly*. (“App Store—Overview,” available at: <https://www.apple.com/ios/app-store/principles-practices/> (last accessed June 2, 2019).) It says that of these, it approves 60% and rejects 40%, and it rejects the 40% mostly for “minor bugs, followed by privacy concerns.” (*Id.*) It also currently provides an avenue for appeal of sorts to those whose apps are rejected. (*Id.*) No doubt these processes lead to large numbers of new entrants into the App Store every week, which further exacerbates the already serious discoverability problem.

⁷ Apple told the U.S. Supreme Court in August 2018 that as of then, “there [we]re over 2 million apps offered through the App Store.” (Apple Sup. Ct. Pet. Br. at 9 (emphasis deleted). It would appear that there are many more today. (*See, e.g.,* n.6, *supra.*)

⁸ As the Supreme Court has put it:

1 retailer of iOS apps and in-app products. It uses this immense power to force iOS developers to take
 2 70% on the dollar for their paid products by way of subtracting its supra-competitive 30%
 3 commission.⁹ This practice is analogous to a monopsonist retailer paying artificially low wholesale
 4 prices to its suppliers. In both paradigms a competitive market would yield better post-commission
 5 or wholesale prices, and fairer profit, for developers' digital products. It would also mean higher,
 6 and fairer, profits for developers as Apple's \$.99 and end-in-\$.99 pricing mandates were
 7 extinguished by competitive forces, such that developers could price at lower and different price
 8 points in order to maximize volumes.

9 7. Plaintiffs, on their own behalf and that of similarly situated developers, seek monetary
 10 recovery and injunctive relief for harm caused by Apple's violations of federal antitrust law and
 11 California's Unfair Competition Law—harm that persists and will never abate unless Apple is called
 12 to account for its anti-competitive behavior.

13 II. JURISDICTION

14 8. This Court has subject matter jurisdiction over this matter pursuant to the Class
 15 Action Fairness Act of 2005, 28 U.S.C. § 1332(d), because the proposed classes consist of 100 or
 16 more members; the amount in controversy exceeds \$5,000,000, exclusive of costs and interest; and,
 17 given the vast number of iOS developers as alleged herein, it is believed, and therefore alleged, that
 18 at least one member of the class of plaintiffs (for example, plaintiff Pure Sweat Basketball, Inc.) is a
 19 citizen of a state different from the defendant, which is a California corporation.

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 23 Monopsony power is market power on the buy side of the market. Blair & Harrison,
 24 Antitrust Policy and Monopsony, 76 Cornell L.Rev. 297 (1991). As such, a
 25 monopsony is to the buy side of the market what a monopoly is to the sell side and is
 sometimes colloquially called a 'buyer's monopoly.' *See id.*, at 301, 320; Piraino, A
 Proposed Antitrust Approach to Buyers' Competitive Conduct, 56 Hastings L.J. 1121,
 1125 (2005)."

26 *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., Inc.*, 549 U.S. 312, 320 (2007).

27 ⁹ The current exception is subscriptions, where the rate drops to 15% after a year. (*E.g.*, "App
 28 Store—Overview," available at: <https://www.apple.com/ios/app-store/principles-practices/> (last
 accessed June 2, 2019).)

9. Furthermore, this Court has federal question jurisdiction pursuant to the federal antitrust law invoked herein, including the Sherman Act and Clayton Antitrust Act. *E.g.*, 28 U.S.C. § 1331, 28 U.S.C. § 1337(a), and 15 U.S.C. § 15(a).

III. VENUE

10. Venue is proper in this judicial district under 28 U.S.C. § 1391 because a substantial part of the events or omissions giving rise to plaintiffs' claims occurred in this judicial district.

11. There also is a venue provision specifying this judicial district in the operative contract with iOS developers.¹⁰

12. Furthermore, Apple's principal place of business is in this judicial district, and it is believed, and therefore alleged, that a substantial amount of the conduct of which plaintiffs complain occurred in this judicial district. Also, Apple has marketed, advertised, and sold affected devices within this judicial district. Additionally, the San Jose division of this Court is the proper division for filing, given Apple's headquarters in Cupertino, California.

13. Intra-district assignment: Assignment to the San Jose division of the Court is proper pursuant to Northern District of California Local Rule 3-2(d) because a substantial part of the events giving rise to the claims arose in this District. Furthermore, Apple's principal place of business is in this judicial district, and it is believed, and therefore alleged, that a substantial amount of the conduct of which plaintiffs complain occurred in this judicial district. For example, Phil Schiller, Apple's Senior Vice President, Worldwide Marketing, who heads the App Store,¹¹ has his office at Apple's headquarters in Cupertino.¹² Therefore, decisions regarding the App Store and those giving rise to plaintiffs' claims were made at, and emanate from, that California location.

¹⁰ See Ex. A (exemplar of Apple Developer Agreement), ¶ 17.

¹¹ See, e.g., "Apple's Phil Schiller is now in charge of the App Store," *The Verge*, Dec. 1, 2015, available at: <https://www.theverge.com/2015/12/17/10412204/apple-phil-schiller-now-leads-app-store> (last accessed June 3, 2019).

¹² *E.g.*, "Apple to host annual Worldwide Developers Conference June 3-7 in San Jose," Mar. 14, 2019, quoting Mr. Schiller, and listing Cupertino, CA at the top of the release (last accessed June 3, 2019); <https://www.apple.com/contact/> (listing Apple's corporate address as One Apple Park Way Cupertino, CA 95014) (last accessed June 3, 2019).

IV. PARTIES

A. The Plaintiffs

Donald R. Cameron

14. Plaintiff Cameron is a California resident. He co-developed a baby-naming app, Lil' Baby Names, which he has made available for sale in the App Store since July 2015. Mr. Cameron is a party to the developer contracts with Apple referenced herein. These contracts specify the commission rate and pricing and other mandates at issue in this suit. Also, in order to be permitted to make his app available for sale in the App Store, Mr. Cameron has paid Apple's mandatory \$99 annual developer fee since July 2015, with the last such payment made in December 2018. Based on a review of his records, Mr. Cameron's last sale of his app was in or about April 2019. Because Mr. Cameron's product is a paid app, he has paid Apple's 30% commission on each sale.

15. Mr. Cameron's app was developed in the Swift programming language for the iOS ecosystem.

16. Additionally, Mr. Cameron's app has always been subject to Apple's requirement that paid apps be priced at a minimum of \$.99 as well as its end-in-\$.99 pricing mandate. Throughout its availability in the App Store, Mr. Cameron has priced his app at \$2.99. If, however, Mr. Cameron could have priced his app at above zero but below \$.99, he might well have done so, in order to attempt to capture volume sales. Of course, Mr. Cameron still would have faced the grave discoverability problem faced by all iOS app developers. With so many apps crammed into the sole iOS app store, consumers cannot find good apps. In fact, a search for "baby naming" in the app store yields pages and pages of such apps—but not Mr. Cameron's (at least before a typical, reasonable consumer would stop scrolling).¹³ That search reveals apps to help with Sikh baby naming and

¹³ Apple's recent efforts to revamp the look of the App Store, and to feature more apps, will never be enough when there are only 365 days in the year, only so much space, and so very many apps of all sorts crowded into a single store. (See, e.g., "App Store discovery is climbing after the iOS 11 redesign," *Business Insider*, May 16, 2018, available at: <https://www.businessinsider.com/apple-redesign-boosting-app-store-discovery-2018-5> (discussing effect of September 2017 design change that allows more apps to be featured, which was quite limited, especially when compared to the total number of apps in the App Store, and also considering that most apps are found by search—which again will yield way too many results to prove fruitful to vast numbers of developers) (last accessed June 1, 2019).

1 Icelandic baby naming and Albanian baby naming, among so many others, but not Mr. Cameron's
2 app.

3 17. In order to reach consumers of iOS devices, Mr. Cameron and the other plaintiffs
4 required iOS distribution services (and not Android OS or other OS distribution services). Because
5 Apple excluded all competition for iOS distribution services, Mr. Cameron, like his fellow plaintiffs,
6 had no choice but to pay what Apple demanded for its iOS distribution services, *i.e.*, the 30%
7 commission on all sales of his paid app.

8 Pure Sweat Basketball, Inc.

9 18. Plaintiff Pure Sweat Basketball, Inc. is an Illinois corporation company with its
10 principal place of business in Crystal Lake, Illinois. It has developed the Pure Sweat Basketball
11 Workout App. Pure Sweat Basketball Inc is a party to the developer contracts referenced herein.
12 The agreements specify the commission rate and pricing and other mandates described herein. Also,
13 in order to be permitted to make its app available for sale in the App Store, Pure Sweat Basketball
14 Inc. has paid Apple's mandatory \$99 annual developer fee. Pure Sweat Basketball last sale of his
15 App was in 2019. Pure Sweat Basketball charges a monthly subscription of \$4.99, Pure Sweat
16 Basketball has paid Apple's 30% commission on each sale.

17 19. Additionally, Pure Sweat Basketball's app has always been subject to Apple's
18 requirement that app transaction be priced at a minimum of \$.99 as well as its end-in-\$.99 pricing
19 mandate.

20 **B. The Defendant**

21 20. Apple, the designer, manufacturer, and vendor of iPhones, iPads, and iPod touch
22 music players; the designer and author of iOS and iOS updates; and the owner and operator of the
23 App Store, is a California corporation. It maintains its headquarters and principal place of business
24 in Cupertino, California.

25 21. Also upon information and belief, and as alleged above, Apple took all decisions and
26 actions complained of herein at or near its corporate headquarters in Cupertino, California, or
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elsewhere in the state of California. It is believed, and therefore alleged, that substantially all of the misconduct alleged in this complaint occurred in or emanated from California.¹⁴

V. RELEVANT FACTS

22. Apple has injured plaintiffs and competition by way of its unlawful behavior in the U.S. market for iOS app and in-app product distribution or retailing services. As the holder of an improperly obtained monopoly in this market (or, effectively, as a monopsonist in the retailing of apps and in-app products), Apple's behavior has resulted in overcharges in these transactions due to its imposition of a supra-competitive and profit-reducing 30% fee on each paid sale from its store.¹⁵ This is a boon to Apple—while its hardware sales may vary or even decline at times, analysts have predicted that its App Store revenues will increase.¹⁶

23. Apple's minimum and end-in-\$.99 pricing mandates for paid apps and in-app products also depress output. Further, Apple's aggressive and improper monopolization of this market, or the abuse of its monopsony powers in the retailing space, has stifled competition by preventing the emergence of any viable competitors whatsoever, which reinforces and strengthens its pernicious and overbearing power in a market already distinguished by high barriers to entry. Additionally, its exclusion of any competitors depresses the output of iOS app and in-app-product distribution transactions by rendering undiscoverable vast numbers of apps (and related in-app products) due to the sheer number of apps available in the one app store available to developers and app and in-app-product buyers.

¹⁴ See, e.g., nn.11-12, *supra*.

¹⁵ Again, the rate for subscriptions now drops to 15% after one year. (*E.g.*, "App Store—Overview," available at: <https://www.apple.com/ios/app-store/principles-practices/>.)

¹⁶ See, e.g., "The 30 Percent App Fees Are Too Damn High," *Bloomberg Businessweek*, available at <https://www.bloomberg.com/news/articles/2019-01-07/the-30-percent-fees-app-developers-have-to-pay-are-too-damn-high> ("Apple skipped its typical disclosure of full-year App Store purchases and developer payouts for 2018, but analysts estimate revenue has risen steadily. At the same time, growth of its iPhone income stream has become unreliable.") (last accessed June 3, 2019).

A. iOS developers distribute apps via Apple's App Store.

Inception of the App Store

24. Apple introduced the App Store in July 2008, about a year after it introduced the iPhone.¹⁷ This followed its introduction in May 2008 of a software development kit for third-party app developers.¹⁸

iOS app and in-app product distribution/retail sales

25. Americans own some 189 million iPhones,¹⁹ all of which run iOS apps and in-app products.²⁰ They own tens of millions more iPads and iPod touch devices,²¹ which also run iOS apps and in-app products. The U.S. market for the distribution of iOS apps and related digital products²² is huge—so huge, in fact, that Apple's 2018 global earnings for the App Store were likely in the \$13 billion dollar range,²³ such that its U.S. earnings alone were undoubtedly in the several-billion-dollar range, too.

¹⁷ Apple Sup. Ct. Br. at 7.

¹⁸ *Id.*

¹⁹ "189 Million iPhones Are Currently in Use in the U.S.," *Cult of Mac*, Feb. 7, 2019, available at: <https://www.cultofmac.com/605442/189-million-iphones-are-currently-in-use-in-the-u-s/> ("According to new research published by Consumer Intelligence Research Partners, Apple's total U.S. install base (the number of active iPhones being used) currently stands at 189 million units. With the U.S. population in the vicinity of 325.7 million people, that's more than one iPhone for every two people in the country.") (last accessed June 3, 2019).

²⁰ See also <http://www.pewinternet.org/fact-sheet/mobile/> (last accessed June 3, 2019).

²¹ The number of iPad users in the U.S. in the 2018-19 time frame was and is approximately 81 million. (See "Number of iPad users in the United States from 2013 to 2020 (in millions)," available at: <https://www.statista.com/statistics/208039/ipad-users-forecast-in-the-us/> (last accessed June 3, 2019). And all time, Apple has sold some 400 million+ iPods. ("This Is the Number of iPods Sold All Time," *Lifewire*, updated May 6, 2019, available at: <https://www.lifewire.com/number-of-ipods-sold-all-time-1999515> (last accessed June 3, 2019).) While that figure is not U.S. only, nor is it iPod touch only, nonetheless, it suggests that millions of Americans have bought apps and in-app products from the App Store for their devices over time, some no doubt in recent years.

²² See, e.g., Apple Sup. Ct. Pet. Br. at 9 (emphasis deleted).

²³ Apple has reported that globally, iOS developers earned some \$34 billion from sales in the App Store. (E.g., "Developer's [sic] \$34 Billion Earnings from Apple's App Store Rose 28% in 2018," *Fortune*, Jan. 29, 2019, available at: fortune.com/2019/01/28/apple-app-store-developer-earning-2018/ (last accessed June 2, 2019). Apple reduced certain fees for App Store subscription sales beginning in September 2016. (E.g., Google matches Apple by reducing Play Store fee for Android app subscriptions," *The Verge*, Oct. 19, 2017, available at: <https://www.theverge.com/2017/10/19/16502152/google-play-store-android-apple-app-store-subscription-revenue-cut>) (last accessed June 2, 2019). Applying a hypothetical blended rate of 27%

26. The iOS operating system is unique and incompatible with other mobile operating systems. So, then, is the market for iOS distribution services. An iOS developer needs distribution services that will allow his product to reach iOS device owners. It is of no consequence to an iOS developer that there are other distribution channels set up to reach owners of products powered by a different mobile operating system.

27. By Apple's anti-competitive fiat, the App Store is the sole way in which iOS apps and in-app items can be sold to iOS device owners. This store is exclusive and anti-competitive by design, and so, then, are Apple's iOS distribution services. Apple insists that buyers of its devices purchase apps and in-app products only through the App Store.²⁴ Ostensibly, this is so it can vet apps "for malware and offensive content,"²⁵ among other things²⁶—as if other app store owners could not provide similar services. To reach Apple iOS device owners, then, developers have no choice but to sell via the App Store. In other words, Apple insists on exclusivity with iOS developers, too.

28. Therefore, Apple has a monopoly in the U.S. market for iOS app and in-app-product distribution services—one that it has improperly acquired and maintained by shutting out competition for no justifiable reason. Alternatively, notwithstanding its commission model, Apple acts as a retailer monopsonist vis-à-vis iOS apps and related digital products.

29. Since July 2008, when it launched the App Store, and despite the accrual of efficiencies and economies of scale, Apple has charged iOS developers a 30% distribution fee, or

for Apple's iOS distribution fees would yield some \$13.11 billion in Apple iOS developer fees for 2018 based on iOS developer earnings of \$34 billion.

²⁴ See, e.g., Brief of Appellee Apple Inc., submitted to the U.S. Court of Appeals for the Ninth Circuit in *Apple Inc. v. Pepper*, July 11, 2014, Ninth Cir. No. 14-15000 (Apple Ninth Cir. App. Br.), at 44 (citing to its March 2008 press release, in which it stated from the outset: "Third party iPhone and iPod touch applications must be approved by Apple and will be available exclusively through the App Store.").

²⁵ Apple certainly is not infallible in its efforts, which underscores that competitors could provide similar if not better services. (See, e.g., "Apple Battles App Store Malware Outbreak," available at: <https://www.bankinfosecurity.com/apple-battles-app-store-malware-outbreak-a-8538> (noting that U.S. consumers were affected: "[f]or example, WeChat is widely used across the Asia-Pacific region, while business card scanning program CamCard - which is developed by a Chinese company - is the most-downloaded business card reader and scanner in many countries, including the United States.") (last accessed June 3, 2019).)

²⁶ Apple Sup. Ct. Pet. Br. at 7.

commission, on sales of apps and in-app products. And it gets maximum punch from this expensive commission by also insisting that paid apps and in-app products be priced no less than \$.99 at minimum and in sums ending in 99 cents for higher-priced apps and in-app products —no \$.49 or (to provide one example) \$1.49 apps regular-priced apps or in-app items allowed. This maximizes Apple’s profit by ensuring that it collects roughly \$.30 on every paid sale.²⁷

30. What is more, Apple charges its “tens of thousands of registered iOS app developers” an additional \$99 per year.²⁸ This additional charge surely offsets and exceeds the cost of Apple’s curation and security efforts for most if not all such developers, as well as payment processing and other functions. (And on the developer side, paying that \$99 fee annually can also obliterate profits for app developers who are trying to build business, including because it cuts into funds available to market (a critical matter given the severe discoverability problem in a single store crammed with 2 million+ apps).

31. Apple’s anti-competitive app distribution system has led to enormous, supra-competitive profits²⁹ over the years. There is, after all, no check on Apple’s behavior. For example,

²⁷ While many apps are initially free to consumers, such that Apple does not charge their developers at the time consumers download them, developers often monetize their work by offering in-app products for a fee (and Apple collects its 30% commission accordingly). (*See, e.g., id.* at 9 n.3; *see also* “App Store—Overview,” available at: <https://www.apple.com/ios/app-store/principles-practices/>.) Thus, in 2014, under pressure from the European Commission, Apple stopped labeling free-to-acquire apps in the App Store as “free,” going instead to “get.” This better accounts for the fact that in-app products were offered for a charge rather than for free. (*See, e.g.,* “Apple Relabels ‘Free,’ Download Buttons On iTunes And Mac App Store To ‘Get,’ Following Pressure from EC,” dated Nov. 19, 2014,” *Techcrunch*, available at: <https://techcrunch.com/2014/11/19/apple-relabels-free-download-buttons-on-itunes-and-mac-app-store-to-get-following-pressure-from-ec/> (last accessed June 3, 2019).)

Apple addresses in-app purchases here, among other places: <https://developer.apple.com/in-app-purchase/> (“In-app purchases can be used to sell a variety of content, including subscriptions, new features, and services.”) (last accessed June 3, 2019). Apple touts at least two business models for so-called free apps that developers can monetize by way of selling in-app products: “freemium” and “paymium.” (*See, e.g.,* <https://developer.apple.com/app-store/business-models/> (last accessed June 3, 2019). Again, Apple charges developers its 30% commission on such sales.

²⁸ Apple Sup. Ct. Pet. Br. at 7.

²⁹ *See, e.g.,* <https://www.forbes.com/sites/chuckjones/2018/01/06/apples-app-store-generated-over-11-billion-in-revenue-for-the-company-last-year/#63205d266613> (“Apple reported that its App Store generated over \$26.5 billion in revenue for developers in 2017, which was up about 30% year-over-year. *This means that the App Store created approximately \$11.5 billion in revenue for the company.*”) (emphasis added) (last accessed June 3, 2019). And while Apple likes to tout what iOS developers have earned by selling their products through the only iOS store available to them, the

Google Inc. owns and operates the analogous Google Play store. But Google Play is for the sale of Android OS apps that operate on Android OS devices. As Google explains: “Other operating systems: Devices running other operating systems (including Apple and Windows devices) are not supported for downloading Android apps on Google Play.”³⁰ This is because iOS and Android devices and apps are incompatible. So again, even if the Google Play store were available on iOS devices—and it is not—it would put no pressure on Apple to lower distribution fees to iOS developers because those developers could not sell their wares in Google Play. And because Apple does not allow its device owners access to other iOS stores (and prohibits its iOS developers from selling in alternative venues anyway), there is no downward pressure on Apple’s commissions.

32. Nor does Apple need to fear new competitors that might challenge its commissions, fees, and pricing structure. Among other barriers to entry, such as the technical expertise and financial wherewithal to open, operate, and adequately publicize an app store, Apple has created the ultimate roadblock: it simply will not allow outside access to iOS device owners.

How the App Store works

33. For their products to be sold in the App Store, iOS application developers³¹ enter into the Apple Developer Agreement,³² the Apple Developer Program License Agreement,³³ and Schedule 2 to that latter agreement,³⁴ among possibly others. Investigation is ongoing, but plaintiffs believe, and therefore allege, that the pertinent terms of these agreements, including those alleged

fact that the numbers may be large in the abstract does not speak to their fairness vis-a-vis Apple’s developer fees and other charges. Developers would have earned more but-for Apple’s mandates and practices as alleged herein.

³⁰ “System requirements,” available at: <https://support.google.com/googleplay/answer/2844198?hl=en> (last visited June 3, 2019).

³¹ Except presumably Apple, which also offers its own products—including its paid Apple Music product—in the App Store. (See, e.g., “App Store—Overview,” available at: <https://www.apple.com/ios/app-store/principles-practices/> (last accessed June 3, 2019).

³² See Ex. A.

³³ See Ex. B (exemplar of Apple Developer Program License Agreement). Upon information and belief, this may previously have been denominated the iPhone Developer Program License Agreement.

³⁴ Upon information and belief, this Schedule 2 agreement is available, or was available at pertinent times, here: <https://itunesconnect.apple.com/login> (last accessed June 1, 2019), at the “Agreements, Tax, and Banking” link.

herein, have been the same, or substantially the same, during at least the four years preceding the filing of this complaint. Schedule 2 contains the terms requiring payment by developers of Apple's 30% commission on paid sales of apps and in-app products.³⁵

34. A developer must obtain Apple's approval for its apps and in-app products before it can sell them in the App Store.³⁶

35. Developers ostensibly set prices for products sold in the App Store, but their discretion is sharply limited by Apple. As alleged above, Apple requires that paid products be sold to U.S. consumers at a regular price of no lower than \$.99, and that pricing be set via a tier system with prices ending in \$.99.³⁷

36. According to Apple, the App Store is like a mall. Developers sell their wares, and Apple charges a (hefty) distribution fee.³⁸

37. In other words, as Apple admits, developers are direct purchasers of distribution services from Apple.³⁹ In a recent brief to the U.S. Supreme Court, Apple depicted its transactions with developers this way:

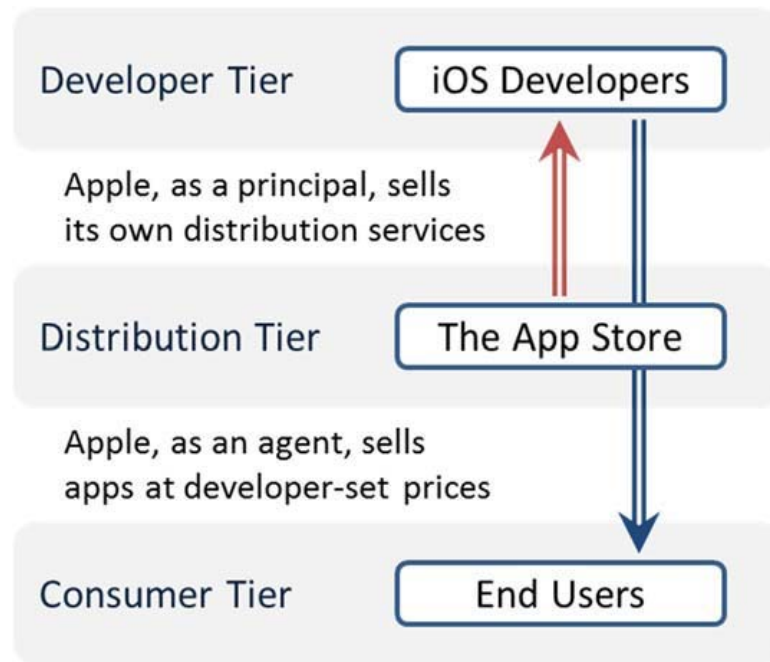
³⁵ See *id.* at, e.g., ¶ 3.4.

³⁶ See, e.g., n.6, *supra*.

³⁷ Apple attaches a pricing schedule to Schedule 2 to as an exhibit. (See *id.*, ¶ 3.1.) This pricing schedule sets forth the pricing regime described here. Also, per the pricing schedule, the maximum price that Apple has allowed in the years at issue was and is \$999.99.

³⁸ Apple Ninth Cir. App. Br. at 28 ("As Plaintiffs allege, Apple sells software distribution services to developers, much in the way that a shopping mall leases physical space to various stores. The fact that Apple's charge for those distribution services is expressed as a percentage of the developer's sales proceeds is immaterial.").

³⁹ E.g., *id.* at 41 ("Apps developers have standing under *Illinois Brick* to argue whatever they want *because they are direct purchasers of distribution services from Apple . . .*") (emphasis added).



Accordingly, developers pay Apple a 30% fee (with the 15% long-term subscription caveat) for the distribution services that Apple sells to them directly on each sale of a paid app or in-app product in the App Store.

38. Or, viewed in the alternative, the 30% fee is a commission that Apple charges developers for retailing their products at the App Store. Because the commission is supra-competitive, it cuts improperly into, and otherwise contributes to the diminishment of, what ought to be the developers' profits. As to the latter point, the commission rate lowers sales and developer profits because it is too high.

B. Apple is a monopolist in the U.S. market for iOS app and in-app-product distribution services.

39. Apple is a monopolist in the U.S. market for iOS app and in-app-product distribution services.

The market

40. The iOS ecosystem is founded on a unique and discrete operating system. Thus, there is no substitute for the iOS-related distribution services that only Apple provides.

41. For example, Google's distribution services are meaningless to developers who program apps and in-app products for use on iOS-powered devices. Developers may learn to code in

1 the Swift programming language for iOS, and they and their employees, if any, may not know how
 2 to code in a different programming language applicable to devices running on a different operating
 3 system. And they cannot simply run a program to convert these applications to the code used for a
 4 different operating system environment in the way that one might convert a WAV file to a FLAC
 5 file; instead, the apps must be written anew in the code for that environment.⁴⁰

6 42. Also, differences in operating system versions come into play, as do the adoption
 7 rates for those versions. Additionally, there are differences among the various devices and screen
 8 sizes available for devices in that other ecosystem. In short, there is no simple or cost effective way
 9 to abandon the Apple iOS environment and flee to another environment with the hope that
 10 distribution fees will be cheaper, or that if enough other developers move, Apple would be forced to
 11 lower its distribution-service prices. What is more, a move away from the iOS system would mean
 12 that a developer could no longer offer its iOS apps or in-app products to millions of consumers who
 13 would have no other way to buy these products for their devices. And the developer would face the
 14 same 30% basic commission at the Google Play store, too, thanks to Google's similar anti-
 15 competitive behavior.⁴¹

16 43. Thus, Google offers no competitive downward pressure on iOS distribution-services
 17 pricing. Google's distribution services, which are tied to offerings in its Google Play store, do not
 18 cover iOS products—only Android OS products distributed via Google Play. The same is true of
 19
 20
 21

22 ⁴⁰ Compare, e.g., “8 Free Audio Converter Software Programs,” *Lifewire*, May 9, 2019
 23 (updated), available at: <https://www.lifewire.com/free-audio-converter-software-programs-2622863>
 24 (last accessed June 2, 2019), with, e.g., “How to Convert an Android App to an iOS App (and Vice
 25 Versa),” *Upwork*, available at: [https://www.upwork.com/hiring/for-clients/convert-android-app-ios-](https://www.upwork.com/hiring/for-clients/convert-android-app-ios-app-vice-versa/)
 26 [app-vice-versa/](https://www.upwork.com/hiring/for-clients/convert-android-app-ios-app-vice-versa/) (“Porting Android to iOS is not the same as making a copy of a JPEG image or
 27 converting MP3 music file to WAV. . . . To convert an app from one platform to another you have
 28 to hire developers that will build a new app (which, actually, will have the same or almost the same
 functionality and interface) specifically for the chosen platform . . .”) (reprinted with permission
 from *Stormotion*) (last accessed June 1, 2019).

⁴¹ “Transaction fees,” available at: [https://support.google.com/googleplay/android-](https://support.google.com/googleplay/android-developer/answer/112622?hl=en)
[developer/answer/112622?hl=en](https://support.google.com/googleplay/android-developer/answer/112622?hl=en) (last accessed June 3, 2019).

Amazon's distribution services, which are tied to its App Store—these, too, are solely for Android OS products, and never for iOS items.⁴²

44. Europe has recognized these realities in addressing anti-competitiveness concerns with Google Play. As the European Commission put it in terms specifically regarding Android, but with logic and facts equally applicable to iOS:

As a licensable operating system, Android is different from operating systems exclusively used by vertically integrated developers (like Apple iOS or Blackberry). Those are not part of the same market because they are not available for license by third party device manufacturers.

Nevertheless, the Commission investigated to what extent competition for end users (downstream), in particular between Apple and Android devices, could indirectly constrain Google's market power for the licensing of Android to device manufacturers (upstream). The Commission found that this competition does not sufficiently constrain Google upstream for a number of reasons, including:

End user purchasing decisions are influenced by a variety of factors (such as hardware features or device brand), which are independent from the mobile operating system;

Apple devices are typically priced higher than Android devices and may therefore not be accessible to a large part of the Android device user base;

Android device users face switching costs when switching to Apple devices, such as losing their apps, data and contacts, and having to learn how to use a new operating system; and⁴³

45. Regarding app stores specifically, the European Commission has stated (again with specific regard to Google Play, but with an observation that applies to the iOS App Store as well):

This market is also characterized by high barriers to entry. *For similar reasons to those already listed above, Google's app store dominance is not constrained by Apple's App Store, which is only available on iOS devices.*⁴⁴

46. In sum, the U.S. market for iOS app and in-app-product distribution services is discrete.

⁴² E.g., Appstore for Android, available at: https://www.amazon.com/mobile-apps/b?ie=UTF8&node=2350149011&ref_=appstore_categorynav0 (last accessed June 1, 2019).

⁴³ See "Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine," available at: http://europa.eu/rapid/press-release_IP-18-4581_en.htm (last accessed June 3, 2019).

⁴⁴ *Id.* (emphasis added).

Apple's market share

47. By design, Apple's market share in this important market is likely close to 100%.⁴⁵

48. Apple admits that it shuts out all competition from app-distribution to iOS device consumers, ostensibly to protect its device customers from bad apps and malware. But this is overblown pretense. There is no reason to believe that other reputable vendors, including Amazon, for example, could not host an app store and provide a trustworthy app-distribution system if Apple were to open up its system to other providers.

C. Alternatively, Apple is an attempted monopolist in the U.S. market for iOS app and in-app-product distribution services.

49. Alternatively, for the foregoing reasons, Apple is an attempted monopolist in the U.S. market for iOS app and in-app-product distribution services. Given that the facts alleged amply support a finding that Apple has always maintained monopoly status in this U.S. market, *a fortiori* they support a finding that Apple is attempting to monopolize this U.S. distribution-services market by improper means.

50. In fact, even if one were to consider a broader market consisting of all app and in-app product distribution services to include other discrete device market, Apple's share would still hover currently around 54.47% as of May 2019⁴⁶—enough to sustain an attempted monopolization claim in that theoretical—and improperly drawn—U.S. market.

D. Alternatively, Apple behaves as a monopsonist retailer, or attempted monopsonist retailer, of iOS apps and related digital products.

47. Alternatively, by requiring that it be the sole retailer of iOS developers' digital products, Apple acts as a monopsonist, or attempted monopsonist. A monopsonist is a buy-side monopolizer. The circumstances and effects are essentially the same as with monopoly or attempted

⁴⁵ There is no approved way to distribute iOS apps except through the App Store. Others, such as Cydia, have tried and failed to use unapproved ways to, and they have failed. (See, e.g., "Cydia closes purchases for its iOS jailbreak store," *The Verge*, Dec. 16, 2018, available at: <https://www.theverge.com/2018/12/16/18143422/cydia-disables-in-app-purchases-ios-jailbreak-store-apple-iphone> (last accessed June 3, 2019)).

⁴⁶ "Mobile Operating System Market Share United States of America," *GlobalStates* statcounter, available at: <http://gs.statcounter.com/os-market-share/mobile/united-states-of-america> (last accessed June 3, 2019).

monopoly: by Apple's behavior as alleged herein, Apple uses its monopsony power as the sole retailer-distributor for iOS apps and in-app products to pay iOS developers below the price they would obtain in a competitive market for their products. The effect is the same as if Apple, in a wholesale-retail model, had depressed wholesale prices by way of its anti-competitive market power and behavior.

E. By Apple's design, no one, including Google, provides market constraints.

51. Nor does any other entity providing app and in-app-product distribution services, including Google, provide any constraints to Apple's market power. The apps sold for devices running one operating system or the other are incompatible; and, accordingly and not surprisingly, developers of iOS apps cannot sell their iOS products via the Google Play store. Therefore, Google's Android OS distribution services are of no use to developers. And certainly they cannot aid iOS developers in reaching the many tens of millions of iOS device consumers for whom they programmed their apps and-in app products.

52. Furthermore, the switching costs between developing for iOS and Android are high. App developers must learn the discrete programming languages peculiar to each ecosystem. This takes time (including diversion from other economic opportunities), money, and much effort.

53. Most recently, iOS native apps are usually written in Apple's Swift programming language.⁴⁷ Previously, most iOS apps were written in the Objective-C programming language.⁴⁸

As for native Android OS apps, on the other hand:

Android apps can be written using Kotlin, Java, and C++ languages. The Android SDK tools compile your code along with any data and resource files into an APK, an Android package, which is an archive file with an .apk suffix. One APK file

⁴⁷ See, e.g., Apple Developer, "Swift," available at: <https://developer.apple.com/swift/> ("Swift is a powerful and intuitive programming language for macOS, iOS, watchOS, tvOS and beyond. Writing Swift code is interactive and fun, the syntax is concise yet expressive, and Swift includes modern features developers love.") (last accessed June 3, 2019).

⁴⁸ See, e.g., "A Short History of Objective-C," *Medium*, Apr. 24, 2017, available at: <https://medium.com/chmcore/a-short-history-of-objective-c-aff9d2bde8dd> (last accessed June 3, 2019).

contains all the contents of an Android app and is the file that Android-powered devices use to install the app.⁴⁹

54. Given the use of these different programming languages, it is no simple task to switch from iOS apps to Android apps because the ecosystems, like the markets to which they give rise, are separate and discrete. So again, the fact that Google may offer distribution services for Android OS phones, tablets, and music players is of no moment to iOS developers.

55. Europe is in accord: Google offers no counterbalance to Apple in the iOS distribution-services market.⁵⁰

56. Moreover, for sales in its Google Play store, Google charges Android OS developers the same 30% commission on paid apps, paid in-app products, and subscriptions (initially).⁵¹ Apple's practices and mandates give Google the cover it needs, in its discrete ecosystem, to charge developers similarly supra-competitive rates. So even if an iOS developer were to think about spending the time, money, and effort to develop apps for Android OS devices, there would be no respite from supra-competitive and profit-killing transaction fees.

F. Apple's practices with respect to the App Store further restrain and injure competition in the U.S. market for iOS app and in-app-product distribution services, where already there are high barriers to entry.

57. Apple's unlawful practices in aid of establishing and maintaining its monopoly restrain and injure competition in the U.S. market for iOS app and in-app-product distribution services, where already there are high barriers to entry.⁵² Even were it not for Apple shutting out competitors by design, market-participant hopefuls would still need the resources to build and maintain the app store client for iOS devices, to program and maintain the requisite software and algorithms going forward, to advertise the client and the steps needed to install it (assuming that

⁴⁹ Android Developers, "Application Fundamentals," available at: <https://developer.android.com/guide/components/fundamentals> (last accessed June 3, 2019).

⁵⁰ See ¶¶ 44-45, *supra*.

⁵¹ "Transaction fees," available at: <https://support.google.com/googleplay/android-developer/answer/112622?hl=en> (last accessed June 3, 2019).

⁵² See, e.g., ¶¶ 32, 45, *supra*.

Apple would never allow it to be distributed via the App Store, as is currently the case), among other barriers.

58. To reiterate: the European Commission also has concluded that there are high barriers to entering the market for app distribution via app stores.⁵³ The same factors it cited as high barriers to entry in “the worldwide market (excluding China) for licensable smart operating systems,” with specific respect to Google’s OS ecosystem, apply as well with respect to entry into the U.S. market for iOS app and in-app-product distribution services.⁵⁴

G. Apple’s unlawful practices harm competition, developers, and consumers of apps and in-app products, too.

59. Apple’s monopolistic practices in the U.S. market for iOS app and in-app-product distribution services harm competition by depressing the output of distribution transactions. Additionally, these practices harm iOS device consumers by robbing them of innovation and choice. Apple’s distribution charges are so high that undoubtedly they keep developers out of the App Store; why take the financial risk and invest development time when Apple will take such a large percentage of their app and in-app product sales? Also, these practices harm consumers owning iOS mobile devices because they rob them of more other apps that might be truly useful, fun, or innovative, due to the exorbitant distribution charges that developers must pay, and also due to Apple’s refusal to permit the sale of paid apps and in-app products that do not end in 99 cents—*e.g.*, there are no \$.49 cent apps available to them. Additionally, the fact that apps are not discoverable due to the sheer amount of product in the one iOS app store hurts developers and buyers of iOS apps and in-app products as well. Unquestionably, Apple’s anti-competitive mandate that it be the sole provider of distribution services, and that it run the lone iOS app store, hurts competition greatly.

⁵³ See “Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google’s search engine,” available at: http://europa.eu/rapid/press-release_IP-18-4581_en.htm. (*Id.* (“Google is dominant in the worldwide market (excluding China) for app stores for the Android mobile operating system. Google’s app store, the Play Store, accounts for more than 90% of apps downloaded on Android devices. This market is also characterised by high barriers to entry. . . .”).) Further, while plaintiffs’ complaint is not based on Google search dominance, nonetheless, Google search is germane because Google Play is bundled with Google search products, which has aided in achieving Google Play’s monopoly status in the U.S.

⁵⁴ See ¶¶ 5, 23, 45, and n.53, *supra*.

1 **1. Apple harms consumers and competition by depressing output.**

2 60. Evidence shows that consumers of app-store products are quite price sensitive.⁵⁵
3 Apple's high transaction fees, therefore, inhibit sales of products sold via the App Store.⁵⁶ Thus,
4 distribution transactions are inhibited as well. In other words, Apple's fees depress output.

5 61. So do Apple's \$.99 minimum price and end-in-.99 pricing. Apple itself recognizes
6 this by way of contractual terms that set and allow alternative prices in certain other countries⁵⁷:
7 lower prices move more apps and in-app products, which would give rise to more distribution
8 transactions.

9 **2. Apple's behavior stifles innovation.**

10 62. Apple's anti-competitive behavior also stifles innovation in the U.S. market for iOS
11 app and in-app-product distribution services.⁵⁸

12 63. For example, Amazon devised an alternative way of distributing Android OS apps,
13 Amazon Underground, which made apps and in-app purchases "actually free" to consumers.⁵⁹
14 Amazon paid (or pays) developers according to how much time consumers spend interacting with the
15 apps.⁶⁰ Yet Apple's contracts and practices would not allow Amazon or any other competitor to
16 distribute the client for an iOS version of this store (or something similar) via the App Store (even as
17
18

19 ⁵⁵ See, e.g., "Only 33% of US Mobile Users Will Pay for Apps This Year," Feb. 5, 2015,
20 available at: <https://www.emarketer.com/Article/Only-33-of-US-Mobile-Users-Will-Pay-Apps-This-Year/1011965> ("Put a dollar sign in front of an app, and the number of people who are willing to
21 download and install it drops dramatically. According to a new forecast from eMarketer, 80.1 million
22 US consumers will pay for mobile apps at least once this year, representing only 33.3% of all mobile
23 users.") (last accessed June 3, 2019).

24 ⁵⁶ See ¶¶ 23, 59, *supra*.

25 ⁵⁷ See n.37, *supra* (discussing pricing schedule).

26 ⁵⁸ E.g., Stephen D. Houck, *Injury to Competition/Consumers in High Tech Cases*, St. Johns L.
27 Rev. Vol. 5, Iss. 4, 593, 598 (2001) ("Any assessment of a restraint's anticompetitive impact,
28 however, will be incomplete if limited to price and output effects. The restraint's impact on
consumer choice and innovation must also be considered.").

⁵⁹ See, e.g., "Amazon offers up 'actually free' apps and games with its new Underground app,"
Android Authority, Aug. 26, 2016, available at: <https://www.androidauthority.com/amazon-underground-new-app-actually-free-637062/> (last accessed June 2, 2019).

⁶⁰ *Id.*

Amazon distributes several other Amazon apps through the App Store).⁶¹ Simply put, Apple bars *all* competitors from offering distribution services to iOS developers.

64. Surely Apple's aggressive, anti-competitive behavior is one reason why Amazon will be shuttering Amazon Underground in 2019.⁶² Industry analysts perceived Amazon's extreme uphill battle from the outset. One put it this way:

The first issue is scale. For a system like this you need critical mass and scale in terms of audience and content. *Amazon's hands were tied because they weren't able to make Underground readily available on iOS (obviously) or Google devices.*⁶³

That means they were always going to be limited to those people with Fire devices or who were motivated enough to use more than one app store. . . .⁶⁴

65. Another analyst put it this way:

User acquisition is still the biggest challenge

Amazon's revamped plans offer app publishers an innovative new model for monetising certain apps but it may not be enough to address its major challenge: how to persuade Android users to download an alternative store to Google Play. . . .

Underground's economics will not fit all apps

Amazon has published guidelines regarding which apps best suit the new Underground service, focusing on apps which had either previously been paid apps and those which monetise via non-subscription in-app purchases. Amazon can also insert advertising within each Underground app, which will help it monetise the audience rather than simply using Underground to attract a new audience.

Amazon promises to pay \$0.0020 to developers for each minute spent within app, meaning a user would have to spend 8.3 hours using an app to generate a \$1 payout to the developer.

Unlike the traditional freemium model, in which a good conversion rate would mean 2%-5% of the audience pays for any content, developers using Amazon Underground will get some form of monetisation from each app user.

⁶¹ See, e.g., n.3, *supra*.

⁶² See, e.g., "Why is Amazon shutting down its Underground Initiative?" May 9, 2017, available at: <https://www.pocketgamer.biz/mobile-mavens/65694/why-is-amazon-shutting-down-its-underground-initiative/> ("It was part of a long-term strategy with bold ambitions to change the way mobile developers made games, but two years on Amazon has announced that Underground will no longer feature on the Amazon Appstore as of Summer 2017, with the program officially ending in 2019.") (last accessed June 3, 2019).

⁶³ Of course, iOS users cannot download alternative stores at all per Apple's admitted design and practices.

⁶⁴ *Id.* (quoting Oscar Clark, "Author, Consultant and Independent Developer Rocket Lolly Games") (emphasis added).

Developers at the top of the app store chart, whose apps generate hundreds of millions of dollars revenue per quarter, are unlikely to adopt Amazon Underground. *But for developers with apps lower down the charts and those looking to extend the life of older catalogue titles, Amazon Underground is worth consideration as a way to drive incremental revenues*⁶⁵

Other stores are unlikely to follow suit, for now

Amazon's Underground app program is a response challenging market position. As a challenger store with limited market share, Amazon has to innovate to attract users. It also needs to give developers a reason to provide content for its store. Amazon can offset the costs of running the Underground program by tying its users more closely into its ecosystem and driving retail transactions and other content revenues; Amazon Prime Video and its retail store are available alongside mobile apps in Underground. *Market leaders Apple and Google do not struggle to attract users or app publishers and the share they take from app transactions have become significant revenue streams, so there is no incentive for them to adopt a similar program.*⁶⁶

66. And as Apple shuts out even a well-resourced potential competitor such as Amazon, Amazon itself continues to soldier on by way of its Amazon Coins program, which allows consumers to buy apps at a discount in the Amazon Appstore.⁶⁷ For example, on April 22, 2019, the popular game Minecraft for Android OS is priced at the same nominal sum of \$6.99 in both Apple's App Store and Amazon's Appstore.⁶⁸ But by using Amazon Coins, a purchaser could save 20%, bringing her price to approximately \$5.59:

⁶⁵ This sort of competition and innovation also would boost output of transactions.

⁶⁶ See "Amazon Underground innovates with free apps but faces challenges," Oct. 7, 2015, available at: <https://technology.ihs.com/550085/amazon-underground-innovates-with-free-apps-but-faces-challenges> (emphasis added) (last accessed June 3, 2019).

⁶⁷ Amazon's presumptive revenue split in its own Appstore is also 70% developer / 30% store operator, as with Apple. On the other hand, its Amazon Coins program allows consumers to save money on the purchase price of apps everyday while developers continue to earn their 70% developer share. (See https://www.amazon.com/dp/B018HB6E80/ref=twister_B009CDKIA8?encoding=UTF8&psc=1#w_here (explaining Amazon Coins programs and noting: "Save up to 20% when you buy Amazon Coins"); <https://developer.amazon.com/blogs/appstore/post/cbadeae1-990d-4d52-bef5-ea61f6114b94/announcement-amazon-actually-free-program> ("Customers can buy Amazon Coins at a discount, while developers continue to get their full 70 percent revenue share.") (last accessed June 3, 2019).

⁶⁸ Compare <https://play.google.com/store/apps/details?id=com.mojang.minecraftpe> (last accessed June 3, 2019) with, https://www.amazon.com/Mojang-Minecraft/dp/B00992CF6W/ref=sr_1_1?s=mobile-apps&ie=UTF8&qid=1549260798&sr=1-1&keywords=mincraft (last accessed June 3, 2019).

Minecraft
Mojang

* * *

Price: **\$6.99**

Save up to 20% on this app and its in-app items when you purchase **Amazon Coins**. [Learn More](#)

Sold by: Amazon Digital Services, Inc.

This program drives transaction volumes by offering consumers lower prices, while at the same time allowing developers their revenue share based on the nominal price (in this case, \$6.99).⁶⁹ Effectively, Amazon lowers the price of its distribution fee through this program. By remitting \$4.89 (\$6.99 x .7) to the developer on the sale of a game that is nominally priced at \$6.99, but for which it collects only \$5.59 (\$6.99 x .8) from the consumer, this leaves only approximately \$.70 for the distribution fee it collects. Thus, Amazon effectively lowers the commission rate to only 10% of the \$6.99 nominal price or 12.5% of the \$5.59 effective price. This is the sort of competition that developers are denied by way of Apple's abusive monopoly: more sales driven by consumer-side discounts, with lower distribution fees.

67. Amazon has also initiated merchandising programs for developers.⁷⁰ And its "Actually Free" program may continue for now—but only until sometime this year.⁷¹

68. Apple's abusive monopoly also stifles innovation in apps—another way it hurts competition generally. Other vibrant app stores would mean more places for featuring apps. With so many apps available on the market, massive volumes of product can and does get lost in the App Store. Consumers, as well as developers and competition generally, would benefit from other venues that would surface good, new product and encourage the development of yet more and better apps—all of which would engender more output in the market here at issue.

⁶⁹ https://www.amazon.com/Mojang-Minecraft/dp/B00992CF6W/ref=sr_1_1?s=mobile-apps&ie=UTF8&qid=1549260798&sr=1-1&keywords=mincraft (ratings content omitted).

⁷⁰ See, e.g., "Announcement: Amazon Underground Actually Free Program," available at: <https://developer.amazon.com/blogs/appstore/post/cbadeae1-990d-4d52-bef5-ea61f6114b94/announcement-amazon-actually-free-program> (last accessed June 3, 2019).

⁷¹ See ¶¶ 63, 69, *supra*.

1 **3. Apple harms developers by denying them the opportunity to choose other means**
 2 **to get paid for their work.**

3 69. Apple's aggressive, anti-competitive behavior diminishes the choice offered by
 4 endeavors such as Amazon Underground. As explained above, this program lowered prices (even to
 5 zero, with its Actually Free component), while also offering developers another way to earn from
 6 their work. iOS developers could not hope to benefit from Amazon Underground or any other such
 7 third-party program because Apple will not permit it.

8 **4. Apple harms consumers of its distribution services by way of supra-competitive**
 9 **pricing and other pricing mandates.**

10 70. There is no good, pro-competitive, or otherwise justified reason for Apple's 30%
 11 transaction rate, which it has maintained since the opening of its App Store.⁷² Rather, this unnatural
 12 price stability, under the circumstances alleged herein, is a sure sign of Apple's unlawful acquisition
 13 of monopoly power and the abuse of that market power.

14 71. Nor do the facts and circumstances of app and in-app product distribution give rise to
 15 any pro-competitive justification for Apple's contractual terms requiring \$.99 minimum pricing for
 16 paid apps and in-app products, or its end-in-\$.99 pricing mandate. These, too, are abuses of Apple's
 17 improperly obtained monopoly power.

18 **Supra-competitive 30% distribution-services fee**

19 72. In spite of not having to carry physical inventory (as distinct from a mere bit of digital
 20 storage for uploaded content); having such a large and growing pre-install base for the App Store,
 21 which has multiplied not by building more physical stores but simply by replicating a software client
 22 pre-installed on iOS devices; and economies of scale that have grown over time, Apple has continued
 23 to take nearly a third of every dollar spent as a distribution-services fee for all covered App Store
 24 transactions. Given how large the market is, there is plainly enough revenue to support distribution
 25

26 ⁷² See, e.g., "A decade on, Apple and Google's 30% app store cut looks pretty cheesy," Aug. 29,
 27 2018, available at: https://www.theregister.co.uk/2018/08/29/app_store_duopoly_30_per_cent/
 28 ("Apple unveiled the App Store in July 2008, and Android Market the following month, opening
 with the first Android device that October. Apple set the 30 per cent rate, Google simply followed
 suit.") (last accessed June 3, 2019).

functions while providing a healthy profit in the event the 30% transaction fee⁷³ were lowered to a reasonable rate—one the market could generate on its own but for Apple’s improperly acquired monopoly in U.S. market for iOS app and in-app-product distribution services.

73. In addition to the foregoing example of Amazon’s lowered effective rate for distribution services as a function of its Coins program, other examples help to illustrate the exorbitant, and supra-competitive, nature of Apple’s 30% distribution-services fee.

Epic Games

74. In its August 29, 2018 article entitled, “A decade on, Apple and Google’s 30% app store cut looks pretty cheesy,” *The Register* raised several important points and asked as many hard questions with regard to Apple’s long-standing fee structure. The impetus for the article was the developer Epic Games’ decision to distribute its popular Fortnite game to Android device owners outside of Google Play.⁷⁴ (Of course, due to Apple’s completely exclusionary practices, Epic cannot abandon the App Store—if it did so, thanks to Apple’s admitted policies and practices, it could not reach *any* consumers in the iOS device and apps market.)

75. As reported in the article, Epic’s CEO, Tim Sweeney, told *Forbes*⁷⁵ that “[a]voiding the 30 percent ‘store tax’ is a part of Epic’s motivation.”⁷⁶ “It’s a high cost in a world where game developers’ 70 per cent must cover all the cost of developing, operating, and supporting their games. And it’s disproportionate to the cost of the services these stores perform, such as payment

⁷³ Or alternatively, the 30% fee is a retail commission, and Appel is able to impose this high tax on retail sales because it is a monopolist.

⁷⁴ https://www.theregister.co.uk/2018/08/29/app_store_dupoly_30_per_cent/ (last accessed June 3, 2019). The article’s subtitle and URL refer to a “dupoly.” There is no dupoly in a legal sense, given the incompatibility between Android OS apps on the one hand and Apple iOS apps on the other.

⁷⁵ See “From ‘Fortnite’ To ‘Fallout 76,’ Publishers Are Sick Of Google, Apple and Steam’s Store Cuts,” Aug.13, 2018, available at: <https://www.forbes.com/sites/insertcoin/2018/08/13/from-fortnite-to-fallout-76-publishers-are-sick-of-google-apple-and-steams-store-cuts/#1c118ff2578c> (last accessed June 3, 2019) (“Epic announced that Fortnite would indeed be coming to Android, but it would not be sold through the Google Play store. Players would have to (somewhat clunkily) download it from Epic’s website on their phones, and the game would then update itself independently of the Play store going forward.”).

⁷⁶ https://www.theregister.co.uk/2018/08/29/app_store_dupoly_30_per_cent/.

processing, download bandwidth, and customer service.”⁷⁷ In a previous *Register* article, Mr. Sweeney put it this way: “[F]rom the [developer’s] 70 percent, the developer pays all the costs, of developing the game, operating it, marketing it, acquiring users and everything else. For most developers that eats up the majority of their revenue.”⁷⁸

76. After noting that one reader of a previous *Register* article had written: “I learned something. Google take[s] 30%. That is some serious gouging,” the later article stated: “More pertinently, after a decade, is the question why Apple and Google *still* take a 30 per cent cut. In a competitive marketplace, wouldn’t that rate have been whittled down over the years?”⁷⁹ As plaintiffs allege and demonstrate herein, the answer is yes.

77. While the scale of Epic’s own endeavor—not only the sale of Fortnite outside of Google Play, but a new game store for Android OS device owners—will be small compared to the Apple behemoth, such that it cannot benefit from Apple’s economies of scale (or experience at keeping down costs), its owners have provided information illustrating the supra-competitive nature of Apple’s 30% distribution-services fee. For its own store, Epic will employ a 12% transaction fee.

78. This is plenty to achieve a reasonable profit, as explained by Epic’s CEO. Per an *MCV* article entitled, “New Epic Games Store takes on Steam with just 12% revenue share – Tim Sweeney answers our questions”⁸⁰:

“While running Fortnite we [Epic] learned a lot about the cost of running a digital store on PC. The math is quite simple: we pay around 2.5 per cent to 3.5 per cent for payment processing for major payment methods, less than 1.5 per cent for CDN costs (assuming all games are updated as often as Fortnite), and between 1 and 2 per cent for variable operating and customer support costs.” Sweeney told us.

“Fixed costs of developing and supporting the platform become negligible at a large scale. In our analysis, stores charging 30 per cent are marking up their costs by 300 to 400 per cent,” he reveals. “But with developers receiving 88 per cent of

⁷⁷ *Id.*

⁷⁸ “Game over for Google: Fortnite snubs Play Store, keeps its 30%, sparks security fears, Aug. 3, 2018,” Aug. 3, 2018, available at: https://www.theregister.co.uk/2018/08/03/fortnite_security_fears/ (last accessed June 3, 2019). The security fears of which the article also speaks could be avoided if Google Play permitted the distribution of alternative game-store clients through Google Play.

⁷⁹ https://www.theregister.co.uk/2018/08/29/app_store_dupoly_30_per_cent/.

⁸⁰ <https://www.mcvuk.com/business/new-epic-games-store-takes-on-steam-with-just-12-revenue-share-tim-sweeney-answers-our-questions> (dated Dec. 4, 2018) (last accessed June 3, 2019).

revenue and Epic receiving 12 per cent, this store will still be a profitable business for us,” he explains.⁸¹

79. That a newcomer like Epic can run a store profitably with a 12% fee demonstrates how supra-competitive Apple’s 30% developer fee truly is. Given Apple’s experience, huge pre-installation base for the App Store (given that each iPhone, iPad, and iPod touch bears the store client out of the box), and the economies of scale that have accrued over the years, it is likely that it could earn a healthy profit by charging even less than 12% per covered transaction.

Chrome Web Store

80. Another comparator comes from Google. Google has for years operated the Chrome Web Store, whereby it sells certain apps for use on computers, such as Windows laptops and desktops.⁸² Google’s Chrome Web Store distribution fee for certain paid apps or in-app products is only 5%,⁸³ not the App Store’s (or Google Play’s) 30%.

81. There is no indication that the Chrome Web Store is an eleemosynary venture, or that Google is losing money by way of transaction fees set at 5%.

Microsoft Store

82. More recently, Microsoft announced that it has lowered its distribution-service fees for various apps and in-app products.⁸⁴

83. Microsoft’s current App Developer Agreement, v. 8.4, with an effective date of March 5, 2019, covers apps built for Windows and sold through the Microsoft Store. Among other fee reductions, Microsoft has reduced its distribution fees (called Store Fees) for the following category of times from 30% to:

⁸¹ *Id.*

⁸² See <https://chrome.google.com/webstore/category/extensions> (last accessed June 3, 2019).

⁸³ <https://developer.chrome.com/webstore/pricing#seller> (“Each time someone buys your app using Chrome Web Store Payments, Google charges you a 5% transaction fee. For example, if you charge \$1.99, you’ll receive \$1.89; if you charge \$9.99, you’ll receive \$9.49.”) (last accessed Feb. 2, 2019); <https://developer.chrome.com/webstore/money> (same transaction fee for in-app payments when using the Chrome Web Store API) (last accessed June 3, 2019).

⁸⁴ See, e.g., “Microsoft is now giving consumer app developers up to 95 percent of their Store app sales,” *ZD Net*, March 7, 2019, available at: <https://www.zdnet.com/article/microsoft-is-now-giving-consumer-app-developers-up-to-95-percent-of-their-store-app-sales/> (last accessed June 3, 2019).

iii. Fifteen percent (15%) of Net Receipts for any Apps that are not Games (and any In-App Products in such Apps) when: (a) a Customer acquires such App or In-App Product in a version of the Microsoft Store not listed in Section 6(b)(i)(c) on a Windows 10 device that is not an Xbox console; and (b) the Customer acquisition was driven by Microsoft (with such acquisition referral being marked with an OCID).

iv. Five percent (5%) of Net Receipts for any Apps that are not Games (and any In-App Products in such Apps) when: (a) a Customer acquires such App or In-App Product in a version of the Microsoft Store not listed in Section 6(b)(i)(c) on a Windows 10 device that is not an Xbox console; and (b) there is either:

(i) Customer acquisition of such App or In-App Product driven by you (with such acquisition referral being marked with a CID);

(ii) Customer acquisition of such App or In-App Product driven by both you and Microsoft (with such acquisition referral being marked with a CID and an OCID); or

(iii) Customer acquisition of such App or In-App Product that was not driven by either party (with such lack of acquisition referral being marked by the absence of either an OCID or a CID).⁸⁵

84. Again, these 5% and 15% rates contrast with Apple's supra-competitive 30% rate for apps and in-app products. There is no indication that Microsoft will not earn a reasonable profit on covered transactions.

Minimum and end-in-\$.99 pricing

85. Apple's minimum \$.99 and end-in-\$.99 pricing are also unlawful exercises of its ill-gotten monopoly market power.

86. As described above, Apple mandates \$.99 minimum pricing in its developer contracts.⁸⁶ Low-price apps sell especially well, but Apple will not allow regular paid pricing in the U.S. to fall below \$.99, to the detriment of developers, who see less sales than they would if they could price apps at lower price points such as \$.49. This diminishes output in app and in-app product transactions.

⁸⁵ Compare Microsoft App Developer Agreement, v.8.4, Effective Date: Mar. 5, 2019, available at: <https://docs.microsoft.com/en-us/legal/windows/agreements/app-developer-agreement> (last accessed June 3, 2019) with, Microsoft App Developer Agreement, Effective Date: v.8.3, Effective Date: May 23, 2018, available at: <https://web.archive.org/web/20190117150043/https://docs.microsoft.com/en-us/legal/windows/agreements/app-developer-agreement> (last accessed June 3, 2019).

⁸⁶ See ¶ 35 and n.37, *supra*.

87. Apple's requirement of prices ending in \$.99 also inhibits sales and output in app and in-app-product transactions. Developers cannot offer \$1.49 or \$1.69 paid apps or in-app products, as examples, and there is no lawful justification for this transaction-inhibiting restraint.

H. By requiring that only it can distribute iOS apps via the App Store, Apple depresses output by burying apps (and therefore in-app products) among the millions available for sale there.

88. Apple touts the 2 million+ apps available in the App Store, of every type and variety.⁸⁷ It says it reviews "100k" more each week, with 60% approved on the first try.⁸⁸ In a competitive marketplace, the availability of more and varied product for sale would lead to more distribution-transaction output.

89. But by making itself the sole avenue of distribution for iOS apps and in-app products, Apple depresses output in the U.S. market for iOS app and in-app-product distribution services by way of the sheer number and variety of apps that clog the App Store.⁸⁹ By strongly inhibiting discoverability, apps (and therefore, in-app products) get lost. This leads to fewer sales, which in turn leads to fewer distribution transactions and fees.⁹⁰

90. If Apple did not prohibit all competition by inescapable fiat, other stores from competitors big and small would be inevitable, as others sought to service the many tens of millions of iOS device consumers and the hundreds of thousands of iOS app developers. Large competitors such as Amazon might enter the field, as it has with respect to Android OS apps, but also specialty stores as well. Each such store would become another way by which iOS app developers could get their products seen. This would lead to more sales and the need for more distribution transactions, such that output in the iOS distribution-services market would increase.

I. Apple has admitted that iOS developers have antitrust standing to bring this suit.

91. Apple has admitted that the iOS developers such as the plaintiffs have standing to bring the antitrust claims in this suit.

⁸⁷ See nn.6-7, *supra*.

⁸⁸ See n. 6, *supra*.

⁸⁹ See ¶¶ 5, 23, 59.

⁹⁰ See *id*.

1 92. Apple admits that iOS apps are distributed solely through its App Store.⁹¹ Ostensibly,
2 this is so that it can review them “for malware and similar issues,” though this is certainly something
3 other distributors could do.⁹²

4 93. According to Apple, “[d]evelopers are the ones who purchase distribution [from it],
5 not consumers.”⁹³

6 94. As between consumers of apps and in-app products vs. consumers of its app and in-
7 app-product distribution services, Apple admits that distributors have antitrust standing. In briefing
8 to the Ninth Circuit, Apple has stated: “The software developers who are directly impacted by
9 Apple’s 30% commission absolutely would have antitrust standing to bring a monopolization case, if
10 they wanted to”⁹⁴ “App developers have standing under *Illinois Brick* to argue whatever they
11 want because they are direct purchasers of distribution services from Apple, and if they want to
12 argue, for example, that their consent [to Apple’s fees] was coerced by Apple’s market power, they
13 can.”⁹⁵ With respect to *Illinois Brick* issues, “[a]pp developers are the ones who have antitrust
14 standing to bring any claim about Apple’s ‘monopolization’ of Apps distribution.”⁹⁶

15 95. Similarly, in briefing to the U.S. Supreme Court, Apple has stated: “The developer is
16 also the first person to bear the alleged overcharge on the allegedly monopolized service, and by that
17 definition also the ‘direct purchaser.’”⁹⁷ According to Apple, “it is plainly the iOS developers—the
18

19 ⁹¹ “Indeed, Apple does require iOS developers to submit iOS apps to Apple for review for
20 malware and similar issues. Approved native iOS apps are then distributed solely through the App
21 Store (otherwise developers could circumvent the approval process)” (App. Sup. Ct. Br. at 2.) *See*
22 *also id.* at 7 (“That [iOS] ecosystem has two relevant features: (1) *iPhones will only download third*
party software that Apple has reviewed for malware and offensive content, among other things,” and
(2) to distribute those third party apps, Apple created a new kind of software distribution system, the
App Store.”) (emphasis added).

23 ⁹² For example, as noted above, Amazon runs a store for Android OS apps. It is not credible that
24 it or another potential competitor could not perform the same functions as Apple. In fact, Apple
itself is by no means infallible in its curation and security functions. (*See, e.g., n.25, supra.*)

25 ⁹³ Apple. Sup. Ct. Br. at 36.

26 ⁹⁴ App. Ninth Cir. App. Br. at 18.

27 ⁹⁵ *Id.* at 41.

28 ⁹⁶ *Id.*

⁹⁷ *See* Apple Sup. Ct. Br. at 37 (emphasis in original).

1 direct purchasers and ‘consumers’ of the allegedly monopolized distribution services, and the group
 2 that meets all of the relevant ‘efficient enforcer’ criteria,” who is the direct purchaser, “the *one*
 3 appropriate plaintiff group among the categories of possible plaintiffs”⁹⁸

4 96. Finally, as Apple told the Supreme Court, “the first party that directly pays an
 5 overcharge”—here, the developers, per its own admissions—“has a complete and undiluted cause of
 6 action for the entire overcharge.”⁹⁹ According to Apple, Supreme Court precedent mandates that
 7 “‘the overcharged direct purchaser, and not others in the chain of manufacture or distribution, is the
 8 party’ injured in his business or property” within the meaning of the [Clayton Act].”¹⁰⁰ Apple
 9 stated: the Supreme Court’s prior “decision in *Hanover Shoe, Inc. v. United Shoe Machinery Corp.*,
 10 392 U.S. 481 (1968), gives developers a claim for 100% of any overcharge.”¹⁰¹ Per Apple,
 11 “*Hanover Shoe* ‘concentrate[s] the full recovery for the overcharge’ in the direct purchaser’s
 12 hands.”¹⁰²

13 97. There is simply no doubt in Apple’s view that developers, as opposed to app and in-
 14 app product consumers, are the proper plaintiffs in a suit regarding its iOS distribution-service fees.
 15 As it has told the Supreme Court, “[t]here is no ‘next best plaintiff’ theory that permits indirect
 16 purchasers [such as consumers of the apps and in-app products themselves] to secure their own
 17 standing by undermining the claims of those who first bear an alleged overcharge”¹⁰³—here, the iOS
 18 developers who are the plaintiffs and putative class members.

22 ⁹⁸ *Id.* at 33.

23 ⁹⁹ *Id.* at 17.

24 ¹⁰⁰ *Id.* at 24 (citation omitted); *see also* Reply Brief of Petitioner Apple Inc., submitted to the U.S.
 25 Supreme Court in *Apple Inc. v. Pepper*, Sup. Ct. No. 17-204 (Apple Sup. Ct. Rep. Br.), at 4
 (“[D]evelopers would be the parties first and directly injured by any allegedly excessive
 commissions.”).

26 ¹⁰¹ Apple Sup. Ct. Rep. Br. at 4.

27 ¹⁰² *Id.* at 18 (citation omitted).

28 ¹⁰³ *Id.* at 21.

98. But even without these admissions, the Supreme Court of the United States recently recognized developer standing in this matter. As the Court put it with respect to a monopsony case, which plaintiffs plead in the alternative here:

And it could be that some upstream app developers will also sue Apple on a monopsony theory. In this instance, the two suits would rely on fundamentally different theories of harm and would not assert dueling claims to a “common fund,” as that term was used in *Illinois Brick*. The consumers seek damages based on the difference between the price they paid and the competitive price. The app developers would seek lost profits that they could have earned in a competitive retail market. *Illinois Brick* does not bar either category of suit.¹⁰⁴

VI. INTERSTATE TRADE AND COMMERCE

99. The activities of Apple as alleged in this complaint were within the flow of, and substantially affected, interstate commerce. Apple sells its distribution services to developers across, and without regard to, state lines.

VII. RELEVANT MARKET

100. The antitrust injuries alleged herein, including harm to developers of iOS apps and in-app products, competition, and consumers of iOS devices, have occurred in the U.S. market for iOS app and in-app-product distribution services (or, alternatively, in the U.S. market for iOS app and in-app-product retailing services). Apple monopolizes this market (or acts as a monopsonist retailer) as alleged herein.

101. Due to the incompatibility of Apple's iOS with Google's Android OS, as well as the incompatibility of iOS and Android OS apps as alleged herein, Google Play offers no competition to, and is not a substitute for, the App Store. Nor do other distribution service providers such as Amazon or Microsoft, which also do not provide distribution for iOS apps and in-app products (and which Apple bars from competing in any event). Even with a small but significant—or large—price increase, whatever the duration, plaintiff developers have nowhere to go to serve the iOS market for which they have developed apps and in-app products—they need iOS distribution services. And Apple is the sole, monopolistic provider thanks to its deliberate exclusion of competition.

¹⁰⁴ *Apple Inc. v. Pepper*, 2019 WL 2078087, at *8 (May 13, 2019).

Furthermore, even if a developer were to seek lower prices elsewhere, he or she would not find them in Google's parallel store, Google Play. Thanks to having split the world neatly between them, Google's fees are as high as Apple's.

102. Alternatively, even if one were to consider *all* distribution services for any apps or in-app products, whatever the underlying operating system, or whatever the platform or devices, Apple's distribution services for iOS apps and in-app products would form a distinct relevant sub-market.

103. Apple's restraints on competition directly impact the U.S. market for iOS app and in-app-product distribution services as alleged herein.

104. As it has admitted, Apple is a direct seller of iOS distribution services to iOS developers.¹⁰⁵

105. Plaintiffs seek relief on behalf of themselves and other developers. Insofar as the App Store may be or is a two-sided platform, lower prices to developers for distribution services (or for retail commissions) would not lead to any discernible negative indirect network effects under the circumstances described herein. For example, unlike with respect to credit-card transaction platforms, lower fees or prices would not mean less money available to pay rebates or rewards to consumers. To the contrary, Apple does not share its transaction fees with consumers. Here, Apple's restraints do not help to establish or enhance participation *inter se* developers and consumers, nor do they help to prevent erosion in participation. In fact, Apple can point to no considerations that countervail the propriety of the monetary and injunctive relief that plaintiffs seek.

VIII. CLASS ALLEGATIONS

106. Plaintiffs bring this proposed class action pursuant to Fed. R. Civ. P. 23(b)(1), (2), and (3).

107. Plaintiffs bring this action on behalf of themselves and the following nationwide class, for monetary and injunctive relief based on violations of the federal Sherman Act:

¹⁰⁵ See, e.g., n.39, *supra*.

1 All U.S. developers of any Apple iOS application or in-app product (including
2 subscriptions) sold for a non-zero price via Apple's iOS App Store.

3 Excluded from this proposed class is the defendant; defendant's affiliates and subsidiaries;
4 defendant's current or former employees, officers, directors, agents, and representatives; and the
5 district judge or magistrate judge to whom this case is assigned, as well as those judges' immediate
6 family members.

7 108. Plaintiffs also bring this action on behalf of themselves and the following nationwide
8 class, for monetary (*i.e.*, restitutionary) and injunctive relief based on violations of California's
9 Unfair Competition Law:

10 All U.S. developers of any Apple iOS application or in-app product (including
11 subscriptions) sold for a non-zero price via Apple's iOS App Store.

12 Excluded from this proposed class is the defendant; defendant's affiliates and subsidiaries;
13 defendant's current or former employees, officers, directors, agents, and representatives; and the
14 district judge or magistrate judge to whom this case is assigned, as well as those judges' immediate
15 family members.

16 109. **Numerosity:** The exact number of the members of the proposed classes is unknown
17 and is not available to the plaintiffs at this time, but upon information and belief, supported by
18 Apple's past statements,¹⁰⁶ the classes will consist of at least tens of thousands of members, and
19 possibly hundreds of thousands of members, such that individual joinder in this case is impracticable.

20 110. **Commonality:** Numerous questions of law and fact are common to the claims of the
21 plaintiffs and members of the proposed classes. These include, but are not limited to:

22 a. Whether there is a U.S. market for iOS app and in-app-product distribution
23 services;

24
25 ¹⁰⁶ See, e.g., App. Ninth Cir. Br. at 18 (referring in 2014 brief to "275,000 iOS Apps
26 developers"). Plaintiffs believe that this number has greatly increased since 2014, and discovery will
27 reveal the precise numbers of developers making up the putative class.

28 According to Apple, it "now ha[s] 20 million developers in [its] Apple Developer Program."
"App Store—Overview," available at: <https://www.apple.com/ios/app-store/principles-practices/>.
While this includes developers on other Apple platforms, almost certainly there are many more iOS
developers than the 275,000 Apple referenced in its 2014 brief to the Ninth Circuit.

b. Alternatively, whether there is a U.S. sub-market for iOS app and in-app-product distribution services;

c. Whether Apple has unlawfully monopolized, or attempted to monopolize, the U.S. market for iOS app and in-app-product distribution services, including by way of the contractual terms, policies, practices, mandates, and restraints described herein;

d. Whether competition in the U.S. market for iOS app and in-app-product distribution services has been restrained and harmed by Apple's monopolization, or attempted monopolization, of that market;

e. Alternatively, whether Apple has behaved as a monopsonist, or attempted monopsonist, retailer of iOS apps and in-app products (including subscriptions), as alleged herein;

f. Whether plaintiffs and members of the proposed classes are entitled to declaratory or injunctive relief to halt Apple's unlawful practices, and to their attorney fees, costs, and expenses;

g. Whether plaintiffs and members of the proposed classes are otherwise entitled to any damages, including treble damages, or restitution, and to their attorney fees, costs, and expenses related to any recovery of such monetary relief; and

h. Whether plaintiffs and members of the proposed classes are entitled to any damages, including treble damages, or restitution incidental to the declaratory or injunctive relief they seek, and to their attorney fees, costs, and expenses related to any recovery of such monetary relief.

111. **Typicality:** Plaintiffs' claims are typical of the claims of the members of the proposed classes. The factual and legal bases of Apple's liability are the same and resulted in injury to plaintiffs and all of the other members of the proposed classes.

112. **Adequate representation:** Plaintiffs will represent and protect the interests of the proposed classes both fairly and adequately. He has retained counsel competent and experienced in complex class-action litigation. Plaintiffs have no interests that are antagonistic to those of the proposed classes, and his interests do not conflict with the interests of the proposed class members he seeks to represent.

113. **Prevention of inconsistent or varying adjudications:** If prosecution of a myriad of individual actions for the conduct complained of were undertaken, there likely would be inconsistent or varying results. This would have the effect of establishing incompatible standards of conduct for the defendant. Certification of plaintiffs' proposed classes would prevent these undesirable outcomes.

114. **Injunctive and declaratory relief:** By way of its conduct described in this complaint, Apple has acted on grounds that apply generally to the proposed classes. Accordingly, final injunctive relief or corresponding declaratory relief is appropriate respecting the classes as a whole.

115. **Predominance and superiority:** This proposed class action is appropriate for certification. Class proceedings on these facts and this law are superior to all other available methods for the fair and efficient adjudication of this controversy, given that joinder of all members is impracticable. Even if members of the proposed classes could sustain individual litigation, that course would not be preferable to a class action because individual litigation would increase the delay and expense to the parties due to the complex factual and legal controversies present in this matter. Here, the class action device will present far fewer management difficulties, and it will provide the benefit of a single adjudication, economies of scale, and comprehensive supervision by this Court. Further, uniformity of decisions will be ensured.

IX. APPLICABILITY OF CALIFORNIA LAW

116. There is a California law provision incorporated by reference in Apple's Apple Developer Program License Agreement.¹⁰⁷ Accordingly, plaintiffs allege that California law applies

¹⁰⁷ See, e.g., Ex. B, ¶ 14.10 ("Dispute Resolution; Governing Law") ("Any litigation or other dispute resolution between You and Apple arising out of or relating to this Agreement, the Apple Software, or Your relationship with Apple will take place in the Northern District of California This agreement will be governed by and construed in accordance with the laws of the United States and the State of California, except that body of California law concerning conflicts of law. . . ."). Upon information and belief, this or an effectively identical provision has been in force for at least the preceding four years, but likely since the inception of Apple's provision of distribution services to iOS developers. (See, e.g., Apple Sup. Ct. Br. at 36-37 n. 15 ("The [developer's] obligations were in fact contained in the then-named iPhone Developer Program License Agreement (copies of which are widely available on the internet), and are now found in the Apple Developer Program License Agreement.")); see also Ex. A, ¶ 17 (also containing California choice-of-law provision).

1 to the state law claims they assert on their own behalf and on behalf of the proposed nationwide
2 classes.

3 117. Furthermore, upon information and belief, the unlawful conduct alleged in this
4 complaint, including the drafting, dissemination, and consummation of anti-competitive contracts
5 and policies, as well as the levying and collection of Apple's supra-competitive 30% distribution-
6 services fee from iOS app and in-app-product developers, and the enforcement of minimum-price
7 and end-in-\$.99 price terms, was effected, implemented, adopted, and ratified in the state of
8 California, where Apple maintains its U.S. headquarters. Therefore, a substantial part of the anti-
9 competitive conduct took place in California. For these reasons, too, plaintiffs allege that they and
10 the proposed nationwide classes are entitled to monetary and injunctive relief pursuant to California
11 law.

12 **X. CLAIMS FOR RELIEF**

13 **FIRST CAUSE OF ACTION** 14 **VIOLATION OF THE SHERMAN ACT – MONOPOLIZATION/MONOPSONY** 15 **(15 U.S.C. § 2)**

16 118. Plaintiffs repeat and re-make every allegation above as if set forth herein in full.

17 119. Plaintiffs bring this federal law claim on their own behalf and on behalf of each
18 member of the proposed nationwide class described above.

19 120. The relevant market is the U.S. market for iOS app and in-app-product distribution
20 services, or for retailing iOS apps and in-app products. Alternatively, the relevant market is the U.S.
21 sub-market for iOS app and in-app-product distribution services, or for retailing iOS apps, in-app
22 products, and subscriptions.

23 121. Apple has gained and maintains monopoly power in the relevant market (or sub-
24 market) by improper and unlawful means. Alternatively, Apple, as the sole U.S. retailer of iOS apps
25 and in-app products, and, upon information and belief, a seller of a significant sum of in-app
26 subscriptions, acts as a monopsonist in the relevant market (or sub-market). More specifically,
27 Apple has willfully acquired and maintained such power by its patently exclusionary conduct,
28 including its refusal to allow iOS device owners to purchase iOS apps and in-app products other than
through its own App Store; refusing to allow other app stores to be allowed on its devices; and

1 mandating that iOS developers who sell through the App Store cannot sell their apps through any
2 other means that are meant to reach iOS device consumers. Each of these instances of exclusionary
3 conduct is also directly exclusionary in the U.S. market (or sub-market) for iOS app and in-app-
4 product distribution services, or for retailing iOS apps, in-app products, or subscriptions, because
5 they ensure that iOS app developers must use Apple's distribution services to reach iOS device
6 owners.

7 122. For the reasons stated herein, substantial barriers to entry and expansion exist in the
8 relevant market (or sub-market).

9 123. Apple has the power to exclude competition in the relevant market (or sub-market),
10 and it has used that power, including by way of its unlawful practices in restraint of trade as
11 described herein, in order to maintain and expand its monopoly power in that market.

12 124. Apple's conduct as described herein, including its unlawful practices in restraint of
13 trade, is exclusionary vis-à-vis its rivals in the U.S. market (or sub-market) for iOS app and in-app-
14 product distribution services.

15 125. Apple has behaved as alleged herein to maintain and grow its monopoly in the U.S.
16 market for iOS app and in-app-product distribution services, with the effect being that competition is
17 foreclosed and that consumer choice is gravely diminished. So is innovation. Additionally, Apple
18 has abused its market power by insisting on 30% transaction fees, minimum price fixing, and end-in-
19 \$.99 pricing as alleged herein. Further, Apple's actions have depressed output as alleged in this
20 complaint.

21 126. There is no business necessity or other pro-competitive justification for Apple's
22 conduct.

23 127. Plaintiffs and the federal law class have been injured, and will continue to be injured,
24 in their businesses and property as a result of Apple's conduct, including by way of overpaying for
25 iOS app and in-app-product distribution services. Additionally, or alternatively, plaintiffs and the
26 federal law class have suffered damages because they were underpaid by Apple as a result of the
27 Apple's conduct as described herein.

128. Plaintiffs are inclined to distribute iOS applications in the future, in part because of his investment in programming for the iOS system, and also because of his desire to continue selling applications and in-app items via the App Store. Plaintiffs and the federal law class also are entitled to injunctive relief to prevent Apple from persisting in its unlawful, inequitable, and unjustified behavior to their detriment, with such an injunction at a minimum prohibiting Apple from continuing to: charge supra-competitive distribution fees, mandate minimum pricing and pricing in sums ending in \$.99, and bar competitors from providing distribution services or retail sales services to iOS developers. *See, e.g.*, 15 U.S.C. § 26.

**SECOND CAUSE OF ACTION
VIOLATION OF THE SHERMAN ACT – ATTEMPTED
MONOPOLIZATION/MONOPSONY
(15 U.S.C. § 2)**

129. Plaintiffs repeat and re-make every allegation above as if set forth herein in full.

130. Plaintiffs bring this claim on their own behalf and on behalf of each member of the proposed nationwide federal law class described above.

131. The relevant market is the U.S. market for iOS app and in-app-product distribution services, The relevant market is the U.S. market for iOS app and in-app-product distribution services, or for retailing iOS apps, in-app products, or subscriptions. Alternatively, the relevant market is the U.S. sub-market for iOS app and in-app-product distribution services, or for retailing iOS apps, in-app products, or subscriptions.. Alternatively, the relevant market is the U.S. sub-market for iOS app and in-app-product distribution services, or for retailing iOS apps, in-app products, and subscriptions. Alternatively, the relevant market is the U.S. sub-market for iOS app and in-app-product distribution services, or for retailing iOS apps, in-app products, and subscriptions.

132. Apple has attempted to monopolize the U.S. market (or sub-market) for iOS app and in-app-product distribution services, or for retailing iOS apps, in-app products, or subscriptions. Alternatively, Apple, as the sole U.S. retailer of iOS apps and in-app products, and, upon information and belief, a seller of a significant sum of in-app subscriptions, is an attempted monopsonist in the relevant market (or sub-market). More specifically, Apple has willfully acquired and maintained market power by its patently exclusionary conduct, including its refusal to allow iOS device owners

1 to purchase iOS apps and in-app products other than through its own App Store; refusing to allow
2 other app stores to be allowed on its devices; and mandating that iOS developers who sell through
3 the App Store cannot sell their apps through any other means that are meant to reach iOS device
4 consumers. Each of these instances of exclusionary conduct is also directly exclusionary in the U.S.
5 market (or sub-market) for iOS app and in-app-product distribution services, or for retailing iOS
6 apps, in-app products, or subscriptions, because they ensure that iOS app developers must use
7 Apple's distribution services to reach iOS device owners.

8 133. Apple's anti-competitive conduct has created a dangerous probability that it will
9 achieve monopoly power in the U.S. market (or sub-market) for iOS app and in-app-product
10 distribution services.

11 134. Apple has a specific intent to achieve monopoly power in the U.S. market (or sub-
12 market) for iOS app and in-app-product distribution services, or for retailing iOS apps, in-app
13 products, or subscriptions. Now, and if its unlawful restraints are not checked, Apple has a
14 dangerous probability of success not only in the relevant market as defined by the plaintiffs, but even a
15 hypothetical market including Google.

16 135. Apple has the power to exclude competition in the U.S. market (or sub-market) for
17 iOS app and in-app-product distribution services, or for retailing iOS apps, in-app products, or
18 subscriptions, and it has used that power, including by way of its unlawful practices in restraint of
19 trade as described herein, in an attempt to monopolize that relevant market (or sub-market).

20 136. Apple's conduct as described herein, including its unlawful practices in restraint of
21 trade, is exclusionary vis-à-vis its rivals in the U.S. market (or sub-market) for iOS app and in-app-
22 product distribution services, or for retailing iOS apps, in-app products, or subscriptions.

23 137. Apple has behaved as alleged herein in an attempt to obtain a monopoly in the U.S.
24 market (or sub-market) for iOS app and in-app-product distribution services, or for retailing iOS
25 apps, in-app products, or subscriptions, with the effect being that competition is foreclosed and that
26 consumer choice is gravely diminished. So is innovation. Additionally, Apple has abused its market
27 power by charging supra-competitive 30% distribution fees and mandating minimum prices and end-
28

1 in-\$.99 pricing for iOS apps and in-app products. Further, Apple's actions have depressed output as
 2 alleged herein.

3 138. There is no business necessity or other pro-competitive justification for Apple's
 4 conduct.

5 139. Plaintiffs and the federal law class have been injured, and will continue to be injured,
 6 in their businesses and property as a result of Apple's conduct, including by way of overpaying for
 7 iOS app and in-app-product distribution services. Additionally, or alternatively, plaintiffs and the
 8 federal law class have suffered damages because they were underpaid by Apple as a result of the
 9 Apple's conduct as described herein.

10 140. Plaintiffs are inclined to distribute iOS applications in the future, in part because of
 11 his investment in programming for the iOS system, and also because of their desire to continue
 12 selling applications and in-app items via the App Store. Plaintiffs and the federal law class also are
 13 entitled to injunctive relief to prevent Apple from persisting in its unlawful, inequitable, and
 14 unjustified behavior to their detriment, with such an injunction at a minimum prohibiting Apple from
 15 continuing to: charge supra-competitive distribution fees, mandate minimum pricing and pricing in
 16 sums ending in \$.99, and bar competitors from providing distribution services or retail sales services
 17 to iOS developers. *See, e.g.*, 15 U.S.C. § 26.

18 **THIRD CAUSE OF ACTION**
 19 **VIOLATION OF THE UNFAIR COMPETITION ACT**
 20 **(CAL. BUS. & PROF. CODE §§ 17200 *ET SEQ.*)**

21 141. Plaintiffs repeat and re-make every allegation above as if set forth herein in full.

22 142. Plaintiffs bring this claim on their own behalf and on behalf of each member of the
 23 proposed nationwide California law class described above. Alternatively, if the Court does not apply
 24 California law on a nationwide basis, plaintiffs bring this claim on their own behalf and on behalf of
 25 each member of a California resident class.

26 143. California's Unfair Competition Law (UCL) defines "unfair competition" to include
 27 any "unlawful, unfair, or fraudulent" business act or practice. CAL. BUS. & PROF. CODE §§ 17200 *et*
 28 *seq.* As these are stated in the disjunctive, the UCL sets up three prongs—the unlawful, unfair, and
 fraudulent prongs—the violation of any of which constitutes a violation of the UCL.

1 144. Apple has engaged in, and continues to engage in, acts of unfair competition as
2 defined in California's UCL. More specifically, Apple, based upon the conduct alleged herein, has
3 violated the unlawful and unfair prongs of the UCL.

4 145. Not only is there a California choice-of-law provision in the pertinent developer
5 contracts,¹⁰⁸ but also, the conduct complained of took place in, and has emanated from, California at
6 all pertinent times, as alleged herein.

7 146. Most developers, including the plaintiffs, are individuals (¶¶ Mr. Cameron) or small
8 businesses (Pure Sweat Basketball, Inc.). As such, they lack sophistication and power.

9 147. They also are consumers of Apple's distribution services. Furthermore, consumers
10 of: (a) apps and in-app products sold through the App Store; and (b) Apple's iOS devices, including
11 individuals and small business, are also negatively impacted by Apple's supra-competitive 30%
12 developer's fee as well as its diktats regarding minimum pricing and restricting consumer prices to
13 those ending in \$.99. As alleged herein, Apple's abusive fees and pricing policies affect output.
14 While Apple may point to large numbers of available apps and in-app products and high sales
15 figures, nonetheless, even more apps and in-app products would be available to consumers (or
16 remain available to them) but for Apple's abusive fees and concomitant pricing practices. In sum,
17 Apple's behavior affects consumers not only of its distribution services but also of iOS apps and in-
18 app products.

19 **Unlawful prong**

20 148. Apple's acts of unfair competition include its violations of the Sherman Act as alleged
21 herein. Therefore, Apple has violated the unlawful prong of the UCL.

22 149. Apple's conduct has harmed developers, competition, and even consumers of iOS
23 apps, in-app products, and subscriptions. Developers have overpaid for distribution services (or
24 Apple's retail commission) due to Apple's actions as alleged herein. iOS developers have no
25 alternative but to distribute their wares through the App Store and to pay Apple's supra-competitive
26
27

28 ¹⁰⁸ See Ex. A, ¶ 17.

1 fees. Apple exploits this state of affairs. But for Apple's anti-competitive and abuse behavior, the
 2 cost of distribution services would have been lower than what it was and is.

3 **Unfair prong**

4 150. Apple's acts of unfair competition include its violations of the Sherman Act and the
 5 policies underlying it, as alleged herein. More specifically:

6 (a) The acts or practices alleged in this complaint violate the unfair prong of the UCL
 7 because the injuries complained of herein are substantial, including in their financial impact on
 8 developers as consumers of Apple's distribution services, as well as consumers of iOS apps, in-app
 9 products, and subscriptions. There are no countervailing benefits to consumers or competition from
 10 Apple's unjustified, supra-competitive pricing, or from Apple's mandatory minimum and end-in-
 11 \$.99 pricing, which helps to inflate its profits at the expense of plaintiffs and other consumers.
 12 Neither developers as consumers of Apple's distribution services, nor consumers of iOS apps and in-
 13 app products, could reasonably avoid the injuries inflicted upon them by Apple. Apple mandates
 14 these harmful practices, which it is able to do thanks to its market power as alleged herein;

15 (b) Apple's behavior is also unfair because it offends the nation's antitrust policies as
 16 alleged herein. Additionally, the supra-competitive pricing and mandatory end-in-\$.99 pricing are
 17 substantially injurious to developers and other consumers as alleged herein. They are immoral,
 18 unethical, oppressive, and unscrupulous because they are a function of the abuse of Apple's market
 19 power as alleged herein; and

20 (c) Apple's behavior is also unfair because it violates public policy that is tethered to this
 21 country's statutory antitrust regulation, as expressed in part in the Sherman Act.

22 In sum, for all or any of these reasons, Apple has violated the unfair prong of the UCL.

23 151. Apple's conduct has harmed competition, consumers of its distribution services, and
 24 even consumers of iOS apps, in-app products, and subscriptions. Developers have overpaid for
 25 distribution services (or Apple's retail commission) due to Apple's actions as alleged herein.
 26 Developers have no alternative but to distribute their wares through the App Store and to pay
 27 Apple's supra-competitive fees. Apple exploits this state of affairs. But for Apple's anti-competitive
 28 and abuse behavior, the cost of distribution services would have been lower than what it was.

152. Plaintiffs and the proposed classes are entitled to recover restitution in at least the amount of the difference between the supra-competitive distribution fees they have paid Apple on the one hand and what the fees would be but for Apple's unlawful, inequitable, and unjustified behavior, including abuses of its market power, on the other. *See, e.g.*, Cal. Bus. & Prof. Code § 17203.

153. Plaintiffs are inclined to distribute iOS applications in the future, in part because of his investment in programming for the iOS system, and also because of his desire to continue selling applications and in-app items via the App Store. Plaintiffs and the California law class (or, alternatively, plaintiffs and a class consisting of California residents) are also entitled to injunctive relief to prevent Apple from persisting in its unlawful, inequitable, and unjustified behavior to their detriment, with such an injunction at a minimum prohibiting Apple from continuing to: charge supra-competitive distribution fees, mandate minimum pricing and pricing in sums ending in \$.99, and bar competitors from providing distribution services to iOS developers. *See, e.g.*, Cal. Bus. & Prof. Code § 17203.

PRAYER FOR RELIEF

WHEREFORE, plaintiffs respectfully request the following relief on their own behalf and on behalf of all those similarly situated:

A. That the Court certify this case as a class action; that it certify the proposed federal law class on a nationwide basis, the proposed California law class on a nationwide basis, or, alternatively with respect to plaintiffs' California law claim, and at a minimum, a California-resident class based on California law; and that it appoint them as class representatives and their counsel as class counsel;

B. That the Court award them and the proposed classes all appropriate relief, to include, but not be limited to, injunctive relief requiring that Apple cease the abusive, unlawful, and anti-competitive practices described herein (including pursuant to federal antitrust law: *see, e.g.*, 15 U.S.C. § 26 and state law: *see, e.g.*, Cal. Bus. & Prof. Code § 17203), as requested herein; declaratory relief, adjudging such practices unlawful; as well as monetary relief, whether by way of restitution (*see, e.g.*, Cal. Bus. & Prof. Code § 17203) or damages, including treble damages (*see, e.g.*, 15 U.S.C. § 15(a)), or other multiple or punitive damages, or restitution, where mandated by law

(including federal antitrust law: *see, e.g.*, 15 U.S.C. § 15(a)) or equity or as otherwise available; together with recovery of their costs of suit, including their reasonable attorneys' fees, costs, and expenses (including pursuant to federal antitrust law: *see, e.g.*, 15 U.S.C. § 15(a) and/or 15 U.S.C. § 26; *see also* Cal. Code Civ. Pro. § 1021.5);

C. That the Court grant such additional orders or judgments as may be necessary to remedy or prevent the unlawful practices complained of herein; and

D. That the Court award them and proposed classes such other, favorable relief as may be available and appropriate under federal or state law, or at equity.

JURY TRIAL DEMANDED

Plaintiffs demand a trial by jury on all issues so triable.

DATED: June 4, 2019

Respectfully submitted,

HAGENS BERMAN SOBOL SHAPIRO LLP

By /s/ Shana E. Scarlett
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Attorneys for Plaintiffs and the Proposed Classes

EXHIBIT A

THIS IS A LEGAL AGREEMENT BETWEEN YOU AND APPLE INC. ("APPLE") STATING THE TERMS THAT GOVERN YOUR PARTICIPATION AS AN APPLE DEVELOPER. PLEASE READ THIS APPLE DEVELOPER AGREEMENT ("AGREEMENT") BEFORE PRESSING THE "AGREE" BUTTON AND CHECKING THE BOX AT THE BOTTOM OF THIS PAGE. BY PRESSING "AGREE," YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, PRESS "CANCEL".

Apple Developer Agreement

1. Relationship With Apple; Apple ID and Password. You understand and agree that by registering with Apple to become an Apple Developer ("**Apple Developer**"), no legal partnership or agency relationship is created between you and Apple. You agree not to represent otherwise. You also certify that you are at least thirteen years of age and you represent that you are legally permitted to register as an Apple Developer. This Agreement is void where prohibited by law and the right to register as an Apple Developer is not granted in such jurisdictions. Unless otherwise agreed or permitted by Apple in writing, you cannot share or transfer any benefits you receive from Apple in connection with being an Apple Developer. The Apple ID and password you use to log into your Apple Developer account cannot be shared in any way or with anyone. You are responsible for maintaining the confidentiality of your Apple ID and password and for any activity in connection with your account.

2. Developer Benefits. As an Apple Developer, you may have the opportunity to attend certain Apple developer conferences, technical talks, and other events (including online or electronic broadcasts of such events) ("**Apple Events**"). In addition, Apple may offer to provide you with certain services ("**Services**"), as described more fully herein and on the Apple Developer web pages ("**Site**"), solely for your own use in connection with your participation as an Apple Developer. Services may include, but not be limited to, any services Apple offers at Apple Events or on the Site as well as the offering of any content or materials displayed on the Site ("**Content**"). Apple may change, suspend or discontinue providing the Services, Site and Content to you at any time, and may impose limits on certain features and materials offered or restrict your access to parts or all of such materials without notice or liability.

3. Restrictions. You agree not to exploit the Site, or any Services, Apple Events or Content provided to you by Apple as an Apple Developer, in any unauthorized way, including but not limited to, by trespass, burdening network capacity or using the Services, Site or Content other than for authorized purposes. Copyright and other intellectual property laws protect the Site and Content provided to you, and you agree to abide by and maintain all notices, license information, and restrictions contained therein. Unless expressly permitted herein or otherwise permitted in a separate agreement with Apple, you may not modify, publish, network, rent, lease, loan, transmit, sell, participate in the transfer or sale of, reproduce, create derivative works based on, redistribute, perform, display, or in any way exploit any of the Site, Content or Services. You may not decompile, reverse engineer, disassemble, or attempt to derive the source code of any software or security components of the Services, Site, or Content (except as and only to the extent any foregoing restriction is prohibited by applicable law or to the extent as may be permitted by any licensing terms accompanying the foregoing). Use of the Site, Content or Services to violate, tamper with, or circumvent the security of any computer network, software, passwords, encryption codes, technological protection measures, or to otherwise engage in any kind of illegal activity, or to enable others to do so, is expressly prohibited. Apple retains ownership of all its rights in the Site, Content, Apple Events and Services, and except as expressly set forth herein, no other rights or licenses are granted or to be implied under any Apple intellectual property.

4. Confidentiality. Except as otherwise set forth herein, you agree that any Apple pre-release software, services, and/or hardware (including related documentation and materials) provided to you as an Apple Developer ("**Pre-Release Materials**") and any information disclosed

by Apple to you in connection with Apple Events will be considered and referred to as “**Apple Confidential Information**”.

Notwithstanding the foregoing, Apple Confidential Information will not include: (a) information that is generally and legitimately available to the public through no fault or breach of yours; (b) information that is generally made available to the public by Apple; (c) information that is independently developed by you without the use of any Apple Confidential Information; (d) information that was rightfully obtained from a third party who had the right to transfer or disclose it to you without limitation; or (e) any third party software and/or documentation provided to you by Apple and accompanied by licensing terms that do not impose confidentiality obligations on the use or disclosure of such software and/or documentation. Further, Apple agrees that you will not be bound by the foregoing confidentiality terms with regard to technical information about Apple pre-release software, services and/or hardware disclosed by Apple at WWDC (Apple’s Worldwide Developers Conference), except that you may not post screen shots of, write public reviews of, or redistribute any such materials.

5. Nondisclosure and Nonuse of Apple Confidential Information. Unless otherwise expressly agreed or permitted in writing by Apple, you agree not to disclose, publish, or disseminate any Apple Confidential Information to anyone other than to other Apple Developers who are employees and contractors working for the same entity as you and then only to the extent that Apple does not otherwise prohibit such disclosure. Except for your authorized purposes as an Apple Developer or as otherwise expressly agreed or permitted by Apple in writing, you agree not to use Apple Confidential Information in any way, including, without limitation, for your own or any third party’s benefit without the prior written approval of an authorized representative of Apple in each instance. You further agree to take reasonable precautions to prevent any unauthorized use, disclosure, publication, or dissemination of Apple Confidential Information. You acknowledge that unauthorized disclosure or use of Apple Confidential Information could cause irreparable harm and significant injury to Apple that may be difficult to ascertain. Accordingly, you agree that Apple will have the right to seek immediate injunctive relief to enforce your obligations under this Agreement in addition to any other rights and remedies it may have. If you are required by law, regulation or pursuant to the valid binding order of a court of competent jurisdiction to disclose Apple Confidential Information, you may make such disclosure, but only if you have notified Apple before making such disclosure and have used commercially reasonable efforts to limit the disclosure and to seek confidential, protective treatment of such information. A disclosure pursuant to the previous sentence will not relieve you of your obligations to hold such information as Apple Confidential Information.

6. Confidential Pre-Release Materials License and Restrictions. If Apple provides you with Pre-Release Materials, then subject to your compliance with the terms and conditions of this Agreement, Apple hereby grants you a nonexclusive, nontransferable, right and license to use the Pre-Release Materials only for the limited purposes set forth in this Section 6; provided however that if such Pre-Release Materials are subject to a separate license agreement, you agree that the license agreement accompanying such materials in addition to Sections 4 and 5 of this Agreement shall also govern your use of the Pre-Release Materials. You further agree that in the event of any inconsistency between Section 4 and 5 of this Agreement and the confidentiality restrictions in the license agreement, the license agreement shall govern. You agree not to use the Pre-Release Materials for any purpose other than testing and/or development by you of a product designed to operate in combination with the same operating system for which the Pre-Release Materials are designed. This Agreement does not grant you any right or license to incorporate or make use of any Apple intellectual property (including for example and without limitation, trade secrets, patents, copyrights, trademarks and industrial designs) in any product. Except as expressly set forth herein, no other rights or licenses are granted or to be implied under any Apple intellectual property. You agree not to decompile, reverse engineer, disassemble, or otherwise reduce the Pre-Release Materials to a human-perceivable form, and you will not modify, network, rent, lease, transmit, sell, or loan the Pre-Release Materials in whole or in part.

7. Developer Content License and Restrictions. As an Apple Developer, you may have access to certain proprietary content (including, without limitation, video presentations and audio recordings) that Apple may make available to you from time to time ("**Content**"). Content shall be considered Apple Confidential Information, unless otherwise agreed or permitted in writing by Apple. You may not share the Content with anyone, including, without limitation, employees and contractors working for the same entity as you, regardless of whether they are Apple Developers, unless otherwise expressly permitted by Apple. Subject to these terms and conditions, Apple grants you a personal and nontransferable license to access and use the Content for authorized purposes as an Apple Developer; provided that you may only download one (1) copy of the Content and such download must be completed within the time period specified by Apple for such download. Except as expressly permitted by Apple, you shall not modify, translate, reproduce, distribute, or create derivative works of the Content or any part thereof. You shall not rent, lease, loan, sell, sublicense, assign or otherwise transfer any rights in the Content. Apple and/or Apple's licensor(s) retain ownership of the Content itself and any copies or portions thereof. The Content is licensed, not sold, to you by Apple for use only under this Agreement, and Apple reserves all rights not expressly granted to you. Your rights under this license to use and access the Content will terminate automatically without notice from Apple if you fail to comply with any of these provisions.

8. Compatibility Labs; Developer Technical Support (DTS). As an Apple Developer, you may have access to Apple's software and/or hardware compatibility testing and development labs ("**Labs**") and/or developer technical support incidents ("**DTS Services**") that Apple may make available to you from time to time as an Apple developer benefit or for a separate fee. You agree that all use of such Labs and DTS Services will be in accordance with Apple's usage policies for such services, which are subject to change from time to time, with or without prior notice to you. Without limiting the foregoing, Apple may post on the Site and/or send an email to you with notices of such changes. It is your responsibility to review the Site and/or check your email address registered with Apple for any such notices. You agree that Apple shall not be liable to you or any third party for any modification or cessation of such services. As part of the DTS Services, Apple may supply you with certain code snippets, sample code, software, and other materials ("**Materials**"). You agree that any Materials that Apple provides as part of the DTS Services are licensed to you and shall be used by you only in accordance with the terms and conditions accompanying the Materials. Apple retains ownership of all of its right, title and interest in such Materials and no other rights or licenses are granted or to be implied under any Apple intellectual property. You have no right to copy, decompile, reverse engineer, sublicense or otherwise distribute such Materials, except as may be expressly provided in the terms and conditions accompanying the Materials. **YOU AGREE THAT WHEN REQUESTING AND RECEIVING TECHNICAL SUPPORT FROM DTS SERVICES, YOU WILL NOT PROVIDE APPLE WITH ANY INFORMATION, INCLUDING THAT INCORPORATED IN YOUR SOFTWARE, THAT IS CONFIDENTIAL TO YOU OR ANY THIRD PARTY. YOU AGREE THAT ANY NOTICE, LEGEND, OR LABEL TO THE CONTRARY CONTAINED IN ANY SUCH MATERIALS PROVIDED BY YOU TO APPLE SHALL BE WITHOUT EFFECT. APPLE SHALL BE FREE TO USE ALL SUCH INFORMATION IT RECEIVES FROM YOU IN ANY MANNER IT DEEMS APPROPRIATE, SUBJECT TO ANY APPLICABLE PATENTS OR COPYRIGHTS.** Apple reserves the right to reject a request for access to Labs or for DTS Services at any time and for any reason, in which event Apple may credit you for the rejected lab or support request. You shall be solely responsible for any restoration of lost or altered files, data, programs or other materials provided.

9. Amendment; Communication. Apple reserves the right, at its discretion, to modify this Agreement, including any rules and policies at any time. You will be responsible for reviewing and becoming familiar with any such modifications (including new terms, updates, revisions, supplements, modifications, and additional rules, policies, terms and conditions) ("**Additional Terms**") communicated to you by Apple. All Additional Terms are hereby incorporated into this Agreement by this reference and your continued use of the Site will indicate your acceptance of any Additional Terms. In addition, Apple may be sending communications to you from time to time. Such communications may be in the form of phone calls and/or emails and may include, but not be

limited to, membership information, marketing materials, technical information, and updates and/or changes regarding your participation as an Apple Developer. By agreeing to this Agreement, you consent that Apple may provide you with such communications.

10. Term and Termination. Apple may terminate or suspend you as a registered Apple Developer at any time in Apple's sole discretion. If Apple terminates you as a registered Apple Developer, Apple reserves the right to deny your reapplication at any time in Apple's sole discretion. You may terminate your participation as a registered Apple Developer at any time, for any reason, by notifying Apple in writing of your intent to do so. Upon any termination or, at Apple's discretion, suspension, all rights and licenses granted to you by Apple will cease, including your right to access the Site, and you agree to destroy any and all Apple Confidential Information that is in your possession or control. At Apple's request, you agree to provide certification of such destruction to Apple. No refund or partial refund of any fees paid hereunder or any other fees will be made for any reason. Following termination of this Agreement, Sections 1, 3-5, 7 (but only for so long as the duration specified by Apple for such usage), 10-19 shall continue to bind the parties.

11. Apple Independent Development. Nothing in this Agreement will impair Apple's right to develop, acquire, license, market, promote or distribute products, software or technologies that perform the same or similar functions as, or otherwise compete with, any other products, software or technologies that you may develop, produce, market, or distribute. In the absence of a separate written agreement to the contrary, Apple will be free to use any information, suggestions or recommendations you provide to Apple pursuant to this Agreement for any purpose, subject to any applicable patents or copyrights.

12. Use Of Apple Trademarks, Logos, etc. You agree to follow Apple's trademark and copyright guidelines as published at: www.apple.com/legal/guidelinesfor3rdparties.html ("**Guidelines**") and as may be modified from time to time. You agree not to use the marks "Apple," the Apple Logo, "Mac", "iPhone," "iPod touch" or any other marks belonging or licensed to Apple in any way except as expressly authorized in writing by Apple in each instance or as permitted in Apple's Guidelines. You agree that all goodwill arising out of your authorized use of Apple's marks shall inure to the benefit of and belong to Apple.

13. No Warranty. APPLE AND ITS AFFILIATES, SUBSIDIARIES, OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, PARTNERS, AND LICENSORS (COLLECTIVELY, "**APPLE**" FOR PURPOSES OF THIS SECTION 13 AND 14) DO NOT PROMISE THAT THE SITE, CONTENT, SERVICES (INCLUDING, FUNCTIONALITY OR FEATURES OF THE FOREGOING), LABS, DTS SERVICES, OR ANY OTHER INFORMATION OR MATERIALS THAT YOU RECEIVE HEREUNDER AS AN APPLE DEVELOPER (COLLECTIVELY, THE "**SERVICE**" FOR PURPOSES OF THIS SECTION 13 AND 14) WILL BE ACCURATE, RELIABLE, TIMELY, SECURE, ERROR-FREE OR UNINTERRUPTED, OR THAT ANY DEFECTS WILL BE CORRECTED. THE SERVICE IS PROVIDED ON AN "AS-IS" AND "AS-AVAILABLE" BASIS AND THE SERVICE IS SUBJECT TO CHANGE WITHOUT NOTICE. APPLE CANNOT ENSURE THAT ANY CONTENT (INCLUDING FILES, INFORMATION OR OTHER DATA) YOU ACCESS OR DOWNLOAD FROM THE SERVICE WILL BE FREE OF VIRUSES, CONTAMINATION OR DESTRUCTIVE FEATURES. FURTHER, APPLE DOES NOT GUARANTEE ANY RESULTS OR IDENTIFICATION OR CORRECTION OF PROBLEMS AS PART OF THE SERVICE AND APPLE DISCLAIMS ANY LIABILITY RELATED THERETO. APPLE DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF ACCURACY, NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. APPLE DISCLAIMS ANY AND ALL LIABILITY FOR THE ACTS, OMISSIONS AND CONDUCT OF ANY THIRD PARTIES IN CONNECTION WITH OR RELATED TO YOUR USE OF THE SERVICE. YOU ASSUME TOTAL RESPONSIBILITY AND ALL RISKS FOR YOUR USE OF THE SERVICE, INCLUDING, BUT NOT LIMITED TO, ANY INFORMATION OBTAINED THEREON. YOUR SOLE REMEDY AGAINST APPLE FOR DISSATISFACTION WITH THE SERVICE IS TO STOP USING THE SERVICE. THIS LIMITATION OF RELIEF IS A PART OF THE BARGAIN BETWEEN THE PARTIES. TO THE EXTENT THAT APPLE MAKES ANY PRE-RELEASE SOFTWARE,

HARDWARE OR OTHER PRODUCTS, SERVICES OR INFORMATION RELATED THERETO AVAILABLE TO YOU AS AN APPLE DEVELOPER, YOU UNDERSTAND THAT APPLE IS UNDER NO OBLIGATION TO PROVIDE UPDATES, ENHANCEMENTS, OR CORRECTIONS, OR TO NOTIFY YOU OF ANY PRODUCT OR SERVICES CHANGES THAT APPLE MAY MAKE, OR TO PUBLICLY ANNOUNCE OR INTRODUCE THE PRODUCT(S) OR SERVICE AT ANY TIME IN THE FUTURE.

14. Disclaimer of Liability. TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW, IN NO EVENT WILL APPLE BE LIABLE FOR PERSONAL INJURY, OR ANY INCIDENTAL, SPECIAL, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES WHATSOEVER, INCLUDING, WITHOUT LIMITATION, DAMAGES RESULTING FROM DELAY OF DELIVERY, FOR LOSS OF PROFITS, DATA, BUSINESS OR GOODWILL, FOR BUSINESS INTERRUPTION OR ANY OTHER COMMERCIAL DAMAGES OR LOSSES, ARISING OUT OF OR RELATED TO THIS AGREEMENT OR YOUR USE OR INABILITY TO USE THE SERVICE, HOWEVER CAUSED, WHETHER UNDER A THEORY OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), PRODUCTS LIABILITY, OR OTHERWISE, EVEN IF APPLE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND NOTWITHSTANDING THE FAILURE OF ESSENTIAL PURPOSE OF ANY REMEDY. IN NO EVENT SHALL APPLE'S TOTAL LIABILITY TO YOU UNDER THIS AGREEMENT FOR ALL DAMAGES (OTHER THAN AS MAY BE REQUIRED BY APPLICABLE LAW IN CASES INVOLVING PERSONAL INJURY) EXCEED THE AMOUNT OF FIFTY DOLLARS (\$50.00).

15. Third-Party Notices and Products. Third-party software provided by Apple to you as an Apple Developer may be accompanied by its own licensing terms, in which case such licensing terms will govern your use of that particular third-party software. Mention of third-parties and third-party products in any materials, documentation, advertising, or promotions provided to you as an Apple Developer is for informational purposes only and constitutes neither an endorsement nor a recommendation. All third-party product specifications and descriptions are supplied by the respective vendor or supplier, and Apple shall have no responsibility with regard to the selection, performance, or use of these vendors or products. All understandings, agreements, or warranties, if any, take place directly between the vendors and the prospective users.

16. Export Control. You may not use or otherwise export or re-export any Apple Confidential Information received from Apple except as authorized by United States law and the laws of the jurisdiction in which the Apple Confidential Information was obtained. In particular, but without limitation, the Apple Confidential Information may not be exported or re-exported (a) into any U.S. embargoed countries or (b) to anyone on the U.S. Treasury Department's list of Specially Designated Nationals or the U.S. Department of Commerce Denied Person's List or Entity List or any other restricted party lists. By becoming an Apple Developer or using any Apple Confidential Information, you represent and warrant that you are not located in any such country or on any such list. You also agree that you will not use any Apple Confidential Information for any purposes prohibited by United States law, including, without limitation, the development, design, manufacture or production of nuclear, chemical or biological weapons.

17. Governing Law. This Agreement will be governed by and construed in accordance with the laws of the State of California, excluding its conflict of law provisions. The parties further submit to and waive any objections to personal jurisdiction of and venue in any of the following forums: U.S. District Court for the Northern District of California, California Superior Court for Santa Clara County, Santa Clara County Municipal Court, or any other forum in Santa Clara County, for any disputes arising out of this Agreement.

18. Government End Users. Certain Apple Confidential Information may be considered "Commercial Items", as that term is defined at 48 C.F.R. §2.101, consisting of "Commercial Computer Software" and "Commercial Computer Software Documentation", as such terms are used in 48 C.F.R. §12.212 or 48 C.F.R. §227.7202, as applicable. Consistent with 48 C.F.R. §12.212 or 48 C.F.R. §227.7202-1 through 227.7202-4, as applicable, the Commercial Computer

Software and Commercial Computer Software Documentation are being licensed to U.S. Government end users (a) only as Commercial Items and (b) with only those rights as are granted to all other end users pursuant to the terms and conditions herein. Unpublished-rights reserved under the copyright laws of the United States.

19. Miscellaneous. No delay or failure to take action under this Agreement will constitute a waiver unless expressly waived in writing, signed by a duly authorized representative of Apple, and no single waiver will constitute a continuing or subsequent waiver. This Agreement will bind your successors but may not be assigned, in whole or part, by you without the written approval of an authorized representative of Apple. Any non-conforming assignment shall be null and void. If any provision is found to be unenforceable or invalid, that provision shall be limited or eliminated to the minimum extent necessary so that this Agreement shall otherwise remain in full force and effect and enforceable. This Agreement constitutes the entire agreement between the parties with respect to its subject matter and supersedes all prior or contemporaneous understandings regarding such subject matter. No addition to or removal or modification of any of the provisions of this Agreement will be binding upon Apple unless made in writing and signed by an authorized representative of Apple. The parties hereto confirm that they have requested that this Agreement and all attachments and related documents be drafted in English. *Les parties ont exigé que le présent contrat et tous les documents connexes soient rédigés en anglais.*

EA1283
6/8/15

EXHIBIT B

PLEASE READ THE FOLLOWING APPLE DEVELOPER PROGRAM LICENSE AGREEMENT TERMS AND CONDITIONS CAREFULLY BEFORE DOWNLOADING OR USING THE APPLE SOFTWARE OR APPLE SERVICES. THESE TERMS AND CONDITIONS CONSTITUTE A LEGAL AGREEMENT BETWEEN YOU AND APPLE.

Apple Developer Program License Agreement

Purpose

You would like to use the Apple Software (as defined below) to develop one or more Applications (as defined below) for Apple-branded products. Apple is willing to grant You a limited license to use the Apple Software and Services provided to You under this Program to develop and test Your Applications on the terms and conditions set forth in this Agreement.

Applications developed under this Agreement for iOS Products, Apple Watch, or Apple TV can be distributed in four ways: (1) through the App Store, if selected by Apple, (2) through the Custom App Distribution area of the App Store, if selected by Apple, (3) on a limited basis for use on Registered Devices (as defined below), and (4) for beta testing through TestFlight. Applications developed for macOS can be distributed through the App Store, if selected by Apple, or separately distributed under this Agreement.

Applications that meet Apple's Documentation and Program Requirements may be submitted for consideration by Apple for distribution via the App Store, Custom App Distribution, or for beta testing through TestFlight. If submitted by You and selected by Apple, Your Applications will be digitally signed by Apple and distributed, as applicable. Distribution of free (no charge) Applications (including those that use the In-App Purchase API for the delivery of free content) will be subject to the distribution terms contained in Schedule 1 to this Agreement. If You would like to distribute Applications for which You will charge a fee or would like to use the In-App Purchase API for the delivery of fee-based content, You must enter into a separate agreement with Apple ("Schedule 2"). If You would like to distribute Applications via Custom App Distribution, You must enter into a separate agreement with Apple ("Schedule 3"). You may also create Passes (as defined below) for use on Apple-branded products running iOS or watchOS under this Agreement and distribute such Passes for use by Wallet.

1. Accepting this Agreement; Definitions

1.1 Acceptance

In order to use the Apple Software and Services, You must first accept this Agreement. If You do not or cannot accept this Agreement, You are not permitted to use the Apple Software or Services. Do not download or use the Apple Software or Services in that case. You accept and agree to the terms of this Agreement on Your own behalf and/or on behalf of Your company, organization, educational institution, or agency, instrumentality, or department of the federal government as its authorized legal representative, by doing either of the following:

- (a) checking the box displayed at the end of this Agreement if You are reading this on an Apple website; or
- (b) clicking an "Agree" or similar button, where this option is provided by Apple.

1.2 Definitions

Whenever capitalized in this Agreement:

"Ad Network APIs" means the Documented APIs that provide a way to validate the successful conversion of advertising campaigns on supported Apple-branded products using a combination of cryptographic signatures and a registration process with Apple.

“Ad Support APIs” means the Documented APIs that provide the Advertising Identifier and Advertising Preference.

“Advertising Identifier” means a unique, non-personal, non-permanent identifier provided by iOS or tvOS through the Ad Support APIs that is associated with a particular iOS Product or Apple TV and is to be used solely for advertising purposes, unless otherwise expressly approved by Apple in writing.

“Advertising Preference” means the Apple setting that enables an end-user to set an ad tracking preference.

“Agreement” means this Apple Developer Program License Agreement, including any attachments, Schedule 1 and any exhibits thereto which are hereby incorporated by this reference. For clarity, this Agreement supersedes the iOS Developer Program License Agreement (including any attachments, Schedule 1 and any exhibits thereto), the Safari Extensions Digital Signing Agreement, the Safari Extensions Gallery Submission Agreement, and the Mac Developer Program License Agreement.

“App Store” means an electronic store and its storefronts branded, owned, and/or controlled by Apple, or an Apple Subsidiary or other affiliate of Apple, through which Licensed Applications may be acquired.

“App Store Connect” means Apple’s proprietary online content management tool for Applications.

“Apple” means Apple Inc., a California corporation with its principal place of business at One Apple Park Way, Cupertino, California 95014, U.S.A.

“Apple Certificates” means the Apple-issued digital certificates provided to You by Apple under the Program.

“Apple Maps Service” means the mapping platform and Map Data provided by Apple via the MapKit API for iOS version 6 or later and for use by You only in connection with Your Applications, or the mapping platform and Map Data provided by Apple via MapKit JS for use by You only in connection with Your Applications, websites, or web applications.

“Apple Pay APIs” means the Documented APIs that enable end-users to send payment information they have stored on a supported Apple-branded product to an Application to be used in payment transactions made by or through the Application, and includes other payment-related functionality as described in the Documentation.

“Apple Pay Payload” means a customer data package passed through the Apple Software and Apple Pay APIs as part of a payment transaction (e.g., name, email, billing address, shipping address, and device account number).

“Apple Push Notification Service” or **“APN”** means the Apple Push Notification service that Apple may provide to You to enable You to transmit Push Notifications to Your Application or for use as otherwise permitted herein.

“APN API” means the Documented API that enables You to use the APN to deliver a Push Notification to Your Application or for use as otherwise permitted herein.

“Apple Services” or **“Services”** means the developer services that Apple may provide or make available through the Apple Software or as part of the Program for use with Your Covered Products or development, including any Updates thereto (if any) that may be provided to You by Apple under the Program.

“Apple Software” means Apple SDKs, iOS, watchOS, tvOS, and/or macOS, the Provisioning Profiles, FPS SDK, FPS Deployment Package, and any other software that Apple provides to You under the Program, including any Updates thereto (if any) that may be provided to You by Apple under the Program.

“Apple SDKs” means the Apple-proprietary Software Development Kits (SDKs) provided hereunder, including but not limited to header files, APIs, libraries, simulators, and software (source code and object code) labeled as part of iOS, watchOS, tvOS, or Mac SDK and included in the Xcode Developer Tools package for purposes of targeting Apple-branded products running iOS, watchOS, tvOS, or macOS, respectively.

“Apple Subsidiary” means a corporation at least fifty percent (50%) of whose outstanding shares or securities (representing the right to vote for the election of directors or other managing authority) are owned or controlled, directly or indirectly, by Apple, and that is involved in the operation of or otherwise affiliated with the App Store, Custom App Distribution, TestFlight, and as otherwise referenced herein (e.g., Attachment 4).

“Apple TV” means an Apple-branded product that runs the tvOS.

“Apple Watch” means an Apple-branded product that runs the watchOS.

“Application” means one or more software programs (including extensions, media, and Libraries that are enclosed in a single software bundle) developed by You in compliance with the Documentation and the Program Requirements, for distribution under Your own trademark or brand, and for specific use with an Apple-branded product running iOS, watchOS, tvOS, or macOS, as applicable, including bug fixes, updates, upgrades, modifications, enhancements, supplements to, revisions, new releases and new versions of such software programs.

“Authorized Developers” means Your employees and contractors, members of Your organization or, if You are an educational institution, Your faculty and staff who (a) each have an active and valid Apple Developer account with Apple, (b) have a demonstrable need to know or use the Apple Software in order to develop and test Covered Products, and (c) to the extent such individuals will have access to Apple Confidential Information, each have written and binding agreements with You to protect the unauthorized use and disclosure of such Apple Confidential Information.

“Authorized Test Units” means Apple-branded hardware units owned or controlled by You that have been designated by You for Your own testing and development purposes under this Program, and if You permit, Apple-branded hardware units owned or controlled by Your Authorized Developers so long as such units are used for testing and development purposes on Your behalf and only as permitted hereunder.

“Beta Testers” means end-users whom You have invited to sign up for TestFlight in order to test pre-release versions of Your Application and who have accepted the terms and conditions of the TestFlight Application.

“Custom App Distribution” means the Apple program that offers third parties the ability to obtain volume purchases of Licensed Applications and/or customized Licensed Applications through Apple Business Manager, Apple School Manager, or as otherwise permitted by Apple.

“ClassKit APIs” means the Documented APIs that enable You to send student progress data for use in a school-managed environment.

“CloudKit APIs” means the Documented APIs that enable Your Applications, Web Software, and/or Your end-users (if You permit them) to read, write, query and/or retrieve structured data from public and/or private containers in iCloud.

“Covered Products” means Your Applications, Libraries, Passes, Safari Extensions, Safari Push Notifications, and/or FPS implementations developed under this Agreement.

“DeviceCheck APIs” means the set of APIs, including server-side APIs, that enable You to set and query two bits of data associated with a device and the date on which such bits were last updated.

“DeviceCheck Data” means the data stored and returned through the DeviceCheck APIs.

“Documentation” means any technical or other specifications or documentation that Apple may provide to You for use in connection with the Apple Software, Apple Services, Apple Certificates, or otherwise as part of the Program.

“Documented API(s)” means the Application Programming Interface(s) documented by Apple in published Apple Documentation and which are contained in the Apple Software.

“Face Data” means information related to human faces (e.g., face mesh data, facial map data, face modeling data, facial coordinates or facial landmark data, including data from an uploaded photo) that is obtained from a user’s device and/or through the use of the Apple Software (e.g., through ARKit, the Camera APIs, or the Photo APIs), or that is provided by a user in or through an Application (e.g., uploads for a facial analysis service).

“FPS” or **“FairPlay Streaming”** means Apple’s FairPlay Streaming Server key delivery mechanism as described in the FPS SDK.

“FPS Deployment Package” means the D Function specification for commercial deployment of FPS, the D Function reference implementation, FPS sample code, and set of unique production keys specifically for use by You with an FPS implementation, if provided by Apple to You.

“FPS SDK” means the FPS specification, FPS server reference implementation, FPS sample code, and FPS development keys, as provided by Apple to You.

“FOSS” (Free and Open Source Software) means any software that is subject to terms that, as a condition of use, copying, modification or redistribution, require such software and/or derivative works thereof to be disclosed or distributed in source code form, to be licensed for the purpose of making derivative works, or to be redistributed free of charge, including without limitation software distributed under the GNU General Public License or GNU Lesser/Library GPL.

“Game Center” means the gaming community service and related APIs provided by Apple for use by You in connection with Your Applications that are associated with Your developer account.

“HealthKit APIs” means the Documented APIs that enable reading, writing, queries and/or retrieval of an end-user’s health and/or fitness information in Apple’s Health application.

“HomeKit Accessory Protocol” means the proprietary protocol licensed by Apple under Apple’s MFi/Works with Apple Program that enables home accessories designed to work with the HomeKit APIs (e.g., lights, locks) to communicate with compatible iOS Products, Apple Watch and other supported Apple-branded products.

“HomeKit APIs” means the Documented APIs that enable reading, writing, queries and/or retrieval of an end-user’s home configuration or home automation information from that end-user’s designated area of Apple’s HomeKit Database.

“HomeKit Database” means Apple’s repository for storing and managing information about an end-user’s Licensed HomeKit Accessories and associated information.

“iCloud” or **“iCloud service”** means the iCloud online service provided by Apple that includes remote online storage.

“iCloud Storage APIs” means the Documented APIs that allow storage and/or retrieval of user-generated documents and other files, and allow storage and/or retrieval of key value data (e.g., a list of stocks in a finance App, settings for an App) for Applications and Web Software through the use of iCloud.

“In-App Purchase API” means the Documented API that enables additional content, functionality or services to be delivered or made available for use within an Application with or without an additional fee.

“Intermediary Party” means a party that passes an Apple Pay end-user’s Apple Pay Payload to a Merchant for processing such end-user’s payment transaction outside of an Application.

“iOS” means the iOS operating system software provided by Apple for use by You only in connection with Your Application development and testing, including any successor versions thereof.

“iOS Product” means an Apple-branded product that runs iOS.

“iPod Accessory Protocol” or **“iAP”** means Apple’s proprietary protocol for communicating with iOS Products and which is licensed under the MFi/Works with Apple Program.

“Library” means a code module that cannot be installed or executed separately from an Application and that is developed by You in compliance with the Documentation and Program Requirements only for use with iOS Products, Apple Watch, or Apple TV.

“Licensed Application” means an Application that (a) meets and complies with all of the Documentation and Program Requirements, and (b) has been selected and digitally signed by Apple for distribution, and includes any additional permitted functionality, content or services provided by You from within an Application using the In-App Purchase API.

“Licensed Application Information” means screen shots, images, artwork, previews, icons and/or any other text, descriptions, representations or information relating to a Licensed Application that You provide to Apple for use in accordance with Schedule 1, or, if applicable, Schedule 2 or Schedule 3.

“Licensed HomeKit Accessories” means hardware accessories licensed under the MFi/Works with Apple Program that support the HomeKit Accessory Protocol.

“Local Notification” means a message, including any content or data therein, that Your Application delivers to end-users at a pre-determined time or when Your Application is running in the background and another application is running in the foreground.

“MFi Licensee” means a party who has been granted a license by Apple under the MFi/Works with Apple Program.

“MFi/Works with Apple Accessory” or **“MFi Accessory”** means a non-Apple branded hardware device that interfaces, communicates, or otherwise interoperates with or controls an Apple-branded product using technology licensed under the MFi/Works with Apple Program (e.g., the ability to control an iOS Product through the iPod Accessory Protocol).

“MFi/Works with Apple Program” means a separate Apple program that offers developers, among other things, a license to incorporate or use certain Apple technology in or with hardware accessories or devices for purposes of interfacing, communicating or otherwise interoperating with or controlling select Apple-branded products.

“macOS” means the macOS operating system software, including any successor versions thereof.

“Map Data” means any content, data or information provided through the Apple Maps Service including, but not limited to, imagery, terrain data, latitude and longitude coordinates, transit data, points of interest and traffic data.

“MapKit API” means the Documented API that enables You to add mapping features or functionality to Applications.

“MapKit JS” means the JavaScript library that enables You to add mapping features or functionality to Your Applications, websites, or web applications.

“Merchant” means a party who processes Apple Pay payment transactions under their own name, trademark, or brand (e.g., their name shows up on the end-user’s credit card statement).

“Motion & Fitness APIs” means the Documented APIs that are controlled by the Motion & Fitness privacy setting in an iOS Product and that enable access to motion and fitness sensor data (e.g., body motion, step count, stairs climbed), unless the end-user has disabled access to such data.

“Multitasking” means the ability of Applications to run in the background while other Applications are also running.

“MusicKit APIs” means the set of APIs that enable Apple Music users to access their subscription through Your Application or as otherwise permitted by Apple in the Documentation.

“MusicKit Content” means music, video, and/or graphical content rendered through the MusicKit APIs.

“MusicKit JS” means the JavaScript library that enables Apple Music users to access their subscription through Your Applications, websites, or web applications.

“Network Extension Framework” means the Documented APIs that provide Applications with the ability to customize certain networking features of iOS and macOS (e.g., customizing the authentication process for WiFi Hotspots, VPN features, and content filtering mechanisms).

“Pass(es)” means one or more digital passes (e.g., movie tickets, coupons, loyalty reward vouchers, boarding passes, membership cards, etc.) developed by You under this Agreement, under Your own trademark or brand, and which are signed with Your Pass Type ID.

“Pass Information” means the text, descriptions, representations or information relating to a Pass that You provide to or receive from Your end-users on or in connection with a Pass.

“Pass Type ID” means the combination of an Apple Certificate and Push Application ID that is used by You to sign Your Passes and/or communicate with the APN.

“Program” means the overall Apple development, testing, digital signing, and distribution program contemplated in this Agreement.

“Program Requirements” mean the technical, human interface, design, product category, security, performance, and other criteria and requirements specified by Apple, including but not limited to the current set of requirements set forth in **Section 3.3**, as they may be modified from time to time by Apple in accordance with this Agreement.

“Provisioning Profiles” means the files (including applicable entitlements or other identifiers) that are provided by Apple for use by You in connection with Your Application development and testing, and limited distribution of Your Applications for use on Registered Devices and/or on Authorized Test Units.

“Push Application ID” means the unique identification number or other identifier that Apple assigns to an Application, Pass or Site in order to permit it to access and use the APN.

“Push Notification” or **“Safari Push Notification”** means a notification, including any content or data therein, that You transmit to end-users for delivery in Your Application, Your Pass, and/or in the case of macOS, to the macOS desktop of users of Your Site who have opted in to receive such messages through Safari on macOS.

“Registered Devices” means Apple-branded hardware units owned or controlled by You, or owned by individuals who are affiliated with You, where such Products have been specifically registered with Apple under this Program.

“Safari Extensions” means one or more software extensions developed by You under this Agreement only for use with Safari on macOS in compliance with this Agreement.

“Safari Extensions Gallery” means the Apple-curated collection of Safari Extensions that are hosted by Apple for end-users to download for use with Safari on macOS.

“Security Solution” means the proprietary Apple content protection system marketed as Fairplay, to be applied to Licensed Applications distributed on the App Store to administer Apple's standard usage rules for Licensed Applications, as such system and rules may be modified by Apple from time to time.

“SiriKit” means the set of APIs that allow Your Application to access or provide SiriKit domains, intents, shortcuts, donations, and other related functionality, as set forth in the Documentation.

“Site” means a website provided by You under Your own name, trademark or brand.

“Single Sign-on Specification” means the Documentation provided by Apple hereunder for the Single Sign-On API, as updated from time to time.

“Term” means the period described in **Section 11**.

“TestFlight” means Apple's beta testing service for pre-release Applications made available through Apple's TestFlight Application.

“TestFlight Application” means Apple's application that enables the distribution of pre-release versions of Your Applications to a limited number of Your Authorized Developers and to a limited number of Beta Testers (as specified in App Store Connect) through TestFlight.

“TV App API” means the API documented in the TV App Specification that enables You to provide Apple with TV App Data.

“TV App Data” means the data described in the TV App Specification to be provided to Apple through the TV App API.

“TV App Features” means functionality accessible via the TV App and/or tvOS, iOS and/or macOS devices, which functionality provides the user the ability to view customized information and recommendations regarding content and to access such content through the user’s apps, and/or provides the user the ability to continue play of previously viewed content.

“TV App Specification” means the Documentation provided by Apple hereunder for the TV App API, as updated from time to time.

“tvOS” means the tvOS operating system software, including any successor versions thereof.

“Updates” means bug fixes, updates, upgrades, modifications, enhancements, supplements, and new releases or versions of the Apple Software or Services, or to any part of the Apple Software or Services.

“Wallet” means Apple’s application that has the ability to store and display Passes for use on iOS Products or Apple Watch.

“WatchKit Extension” means an extension bundled as part of Your Application that accesses the WatchKit framework on iOS to run and display a WatchKit app on the watchOS.

“watchOS” means the watchOS operating system software, including any successor versions thereof.

“Web Software” means web-based versions of Your software applications that have the same title and substantially equivalent features and functionality as Your Licensed Application (e.g., feature parity).

“Website Push ID” means the combination of an Apple Certificate and Push Application ID that is used by You to sign Your Site’s registration bundle and/or communicate with the APN.

“You” and **“Your”** means and refers to the person(s) or legal entity (whether the company, organization, educational institution, or governmental agency, instrumentality, or department) that has accepted this Agreement under its own developer account and that is using the Apple Software or otherwise exercising rights under this Agreement.

Note: For the sake of clarity, You may authorize contractors to develop Applications on Your behalf, but any such Applications must be owned by You, submitted under Your own developer account, and distributed as Applications only as expressly permitted herein. You are responsible to Apple for Your contractors’ activities under Your account (e.g., adding them to Your team to perform development work for You) and their compliance with this Agreement. Any actions undertaken by Your contractors arising out of this Agreement shall be deemed to have been taken by You, and You (in addition to Your contractors) shall be responsible to Apple for all such actions.

2. Internal Use License and Restrictions

2.1 Permitted Uses and Restrictions; Program services

Subject to the terms and conditions of this Agreement, Apple hereby grants You during the Term, a limited, non-exclusive, personal, revocable, non-sublicensable and non-transferable license to:

(a) Install a reasonable number of copies of the Apple Software provided to You under the Program on Apple-branded products owned or controlled by You, to be used internally by You or Your Authorized Developers for the sole purpose of developing or testing Covered Products designed to operate on the applicable Apple-branded products, except as otherwise expressly permitted in this Agreement;

- (b) Make and distribute a reasonable number of copies of the Documentation to Authorized Developers for their internal use only and for the sole purpose of developing or testing Covered Products, except as otherwise expressly permitted in this Agreement;
- (c) Install a Provisioning Profile on each of Your Authorized Test Units, up to the number of Authorized Test Units that You have registered and acquired licenses for, to be used internally by You or Your Authorized Developers for the sole purpose of developing and testing Your Applications, except as otherwise expressly permitted in this Agreement;
- (d) Install a Provisioning Profile on each of Your Registered Devices, up to the limited number of Registered Devices that You have registered and acquired licenses for, for the sole purpose of enabling the distribution and use of Your Applications on such Registered Devices; and
- (e) Incorporate the Apple Certificates issued to You pursuant to this Agreement for purposes of digitally signing Your Applications, Passes, Safari Extensions, Safari Push Notifications, and as otherwise expressly permitted by this Agreement.

Apple reserves the right to set the limited number of Apple-branded products that each Licensee may register with Apple and obtain licenses for under this Program (a “**Block of Registered Device Licenses**”). For the purposes of limited distribution on Registered Devices under **Section 7.3 (Ad Hoc distribution)**, each company, organization, educational institution or affiliated group may only acquire one (1) Block of Registered Device Licenses per company, organization, educational institution or group, unless otherwise agreed in writing by Apple. You agree not to knowingly acquire, or to cause others to acquire, more than one Block of Registered Device Licenses for the same company, organization, educational institution or group.

Apple may provide access to services by or through the Program for You to use with Your developer account (e.g., device or app provisioning, managing teams or other account resources). You agree to access such services only through the Program web portal (which is accessed through Apple’s developer website) or through Apple-branded products that are designed to work in conjunction with the Program (e.g., Xcode, App Store Connect) and only as authorized by Apple. If You (or Your Authorized Developers) access Your developer account through these other Apple-branded products, You acknowledge and agree that this Agreement shall continue to apply to any use of Your developer account and to any features or functionality of the Program that are made available to You (or Your Authorized Developers) in this manner (e.g., Apple Certificates and Provisioning Profiles can be used only in the limited manner permitted herein, etc.). You agree not to create or attempt to create a substitute or similar service through use of or access to the services provided by or through the Program. Further, You may only access such services using the Apple ID associated with Your developer account or authentication credentials (e.g., keys, tokens, password) associated with Your developer account, and You are fully responsible for safeguarding Your Apple ID and authentication credentials from compromise and for using them only as authorized by Apple and in accordance with the terms of this Agreement, including but not limited to **Section 2.8** and **5**. Except as otherwise expressly permitted herein, You agree not to share, sell, resell, rent, lease, lend, or otherwise provide access to Your developer account or any services provided therewith, in whole or in part, to anyone who is not an Authorized Developer on Your team, and You agree not to solicit or request Apple Developer Program members to provide You with their Apple IDs, authentication credentials, and/or related account information and materials (e.g., Apple Certificates used for distribution or submission to the App Store or TestFlight). You understand that each team member must have their own Apple ID or authentication credentials to access Your account, and You shall be fully responsible for all activity performed through or in connection with Your account. To the extent that You own or control an Apple-branded computer running Apple’s macOS Server or Xcode Server (“**Server**”) and would like to use it for Your own development purposes in connection with the Program, You agree to use Your own Apple ID or other authentication credentials for such Server, and You shall be responsible for all actions performed by such Server.

2.2 Authorized Test Units and Pre-Release Apple Software

As long as an Authorized Test Unit contains any pre-release versions of the Apple Software or uses pre-release versions of Services, You agree to restrict access to such Authorized Test Unit to Your Authorized Developers and to not disclose, show, rent, lease, lend, sell or otherwise transfer such Authorized Test Unit to any third party. You further agree to take reasonable precautions to safeguard, and to instruct Your Authorized Developers to safeguard, all Authorized Test Units from loss or theft. Further, subject to the terms of this Agreement, You may deploy Your Applications to Your Authorized Developers for use on a limited number of Authorized Test Units for Your own internal testing and development purposes.

You acknowledge that by installing any pre-release Apple Software or using any pre-release Services on Your Authorized Test Units, these Units may be “locked” into testing mode and may not be capable of being restored to their original condition. Any use of any pre-release Apple Software or pre-release Services are for evaluation and development purposes only, and You should not use any pre-release Apple Software or pre-release Services in a commercial operating environment or with important data. You should back up any data prior to using the pre-release Apple Software or pre-release Services. Apple shall not be responsible for any costs, expenses or other liabilities You may incur as a result of provisioning Your Authorized Test Units and Registered Devices, Your Covered Product development or the installation or use of this Apple Software or any pre-release Apple Services, including but not limited to any damage to any equipment, or any damage, loss, or corruption of any software, information or data.

2.3 Confidential Nature of Pre-Release Apple Software and Services

From time to time during the Term, Apple may provide You with pre-release versions of the Apple Software or Services that constitute Apple Confidential Information and are subject to the confidentiality obligations of this Agreement, except as otherwise set forth herein. Such pre-release Apple Software and Services should not be relied upon to perform in the same manner as a final-release, commercial-grade product, nor used with data that is not sufficiently and regularly backed up, and may include features, functionality or APIs for software or services that are not yet available. You acknowledge that Apple may not have publicly announced the availability of such pre-release Apple Software or Services, that Apple has not promised or guaranteed to You that such pre-release software or services will be announced or made available to anyone in the future, and that Apple has no express or implied obligation to You to announce or commercially introduce such software or services or any similar or compatible technology. You expressly acknowledge and agree that any research or development that You perform with respect to pre-release versions of the Apple Software or Services is done entirely at Your own risk.

2.4 Copies

You agree to retain and reproduce in full the Apple copyright, disclaimers and other proprietary notices (as they appear in the Apple Software and Documentation provided) in all copies of the Apple Software and Documentation that You are permitted to make under this Agreement.

2.5 Ownership

Apple retains all rights, title, and interest in and to the Apple Software, Services, and any Updates it may make available to You under this Agreement. You agree to cooperate with Apple to maintain Apple's ownership of the Apple Software and Services, and, to the extent that You become aware of any claims relating to the Apple Software or Services, You agree to use reasonable efforts to promptly provide notice of any such claims to Apple. The parties acknowledge that this Agreement does not give Apple any ownership interest in Your Covered Products.

2.6 No Other Permitted Uses

Except as otherwise set forth in this Agreement, You agree not to rent, lease, lend, upload to or host on any website or server, sell, redistribute, or sublicense the Apple Software, Apple Certificates, or any Services, in whole or in part, or to enable others to do so. You may not use the Apple Software, Apple Certificates, or any Services provided hereunder for any purpose not

expressly permitted by this Agreement, including any applicable Attachments and Schedules. You agree not to install, use or run the Apple SDKs on any non-Apple-branded computer, and not to install, use or run iOS, watchOS, tvOS, macOS and Provisioning Profiles on or in connection with devices other than Apple-branded products, or to enable others to do so. You may not and You agree not to, or to enable others to, copy (except as expressly permitted under this Agreement), decompile, reverse engineer, disassemble, attempt to derive the source code of, modify, decrypt, or create derivative works of the Apple Software, Apple Certificates or any Services provided by the Apple Software or otherwise provided hereunder, or any part thereof (except as and only to the extent any foregoing restriction is prohibited by applicable law or to the extent as may be permitted by licensing terms governing use of open-sourced components or sample code included with the Apple Software). You agree not to exploit any Apple Software, Apple Certificates, or Services provided hereunder in any unauthorized way whatsoever, including but not limited to, by trespass or burdening network capacity, or by harvesting or misusing data provided by such Apple Software, Apple Certificates, or Services. Any attempt to do so is a violation of the rights of Apple and its licensors of the Apple Software or Services. If You breach any of the foregoing restrictions, You may be subject to prosecution and damages. All licenses not expressly granted in this Agreement are reserved and no other licenses, immunity or rights, express or implied are granted by Apple, by implication, estoppel, or otherwise. This Agreement does not grant You any rights to use any trademarks, logos or service marks belonging to Apple, including but not limited to the iPhone or iPod word marks. If You make reference to any Apple products or technology or use Apple's trademarks, You agree to comply with the published guidelines at <http://www.apple.com/legal/trademark/guidelinesfor3rdparties.html>, as they may be modified by Apple from time to time.

2.7 FPS SDK and FPS Deployment Package

You may use the FPS SDK to develop and test a server-side implementation of FPS, solely for use with video streamed by You (or on Your behalf) through Your Applications, or video downloaded for viewing through Your Applications, on iOS Products and/or Apple TV, through Safari on macOS, or as otherwise approved by Apple in writing (collectively, "**Authorized FPS Applications**"). You understand that You will need to request the FPS Deployment Package on the Program web portal prior to any production or commercial use of FPS. As part of such request, You will need to submit information about Your requested use of FPS. Apple will review Your request and reserves the right to not provide You with the FPS Deployment Package at its sole discretion, in which case You will not be able to deploy FPS. Any development and testing You perform with the FPS SDK is at Your own risk and expense, and Apple will not be liable to You for such use or for declining Your request to use FPS in a production or commercial environment.

If Apple provides You with the FPS Deployment Package, You agree to use it solely as approved by Apple and only in connection with video content streamed by You (or on Your behalf) to Authorized FPS Applications or downloaded for viewing through Your Authorized FPS Applications. Except as permitted in **Section 2.9 (Third-Party Service Providers)**, You will not provide the FPS Deployment Package to any third party or sublicense, sell, resell, lease, disclose, or re-distribute the FPS Deployment Package or FPS SDK to any third party (or any implementation thereof) without Apple's prior written consent.

You acknowledge and agree that the FPS Deployment Package (including the set of FPS production keys) is Apple Confidential Information as set forth in **Section 9 (Confidentiality)**. Further, such FPS keys are unique to Your company or organization, and You are solely responsible for storing and protecting them. You may use such FPS keys solely for the purpose of delivering and protecting Your content key that is used to decrypt video content streamed by You to Authorized FPS Applications or downloaded for viewing through Your Authorized FPS Applications. Apple will have no liability or responsibility for unauthorized access to or use of any FPS key or any content streamed or otherwise delivered under this Agreement in connection with FPS. In the event that Your FPS key is disclosed, discovered, misappropriated or lost, You may

request that Apple revoke it by emailing product-security@apple.com, and You understand that Apple will have no obligation to provide a replacement key. Apple reserves the right to revoke Your FPS key at any time if requested by You, in the event of a breach of this Agreement by You, if otherwise deemed prudent or reasonable by Apple, or upon expiration or termination of this Agreement for any reason.

You acknowledge and agree that Apple reserves the right to revoke or otherwise remove Your access to and use of FPS (or any part thereof) at any time in its sole discretion. Further, Apple will have no obligation to provide any modified, updated or successor version of the FPS Deployment Package or the FPS SDK to You and will have no obligation to maintain compatibility with any prior version. If Apple makes new versions of the FPS Deployment Package or FPS SDK available to You, then You agree to update to them within a reasonable time period if requested to do so by Apple.

2.8 Use of Apple Services

Apple may provide access to Apple Services that Your Covered Products may call through APIs in the Apple Software and/or that Apple makes available to You through other mechanisms, e.g., through the use of keys that Apple may make accessible to You under the Program. You agree to access such Apple Services only through the mechanisms provided by Apple for such access and only for use on Apple-branded products. Except as permitted in **Section 2.9 (Third-Party Service Providers)** or as otherwise set forth herein, You agree not to share access to mechanisms provided to You by Apple for the use of the Services with any third party. Further, You agree not to create or attempt to create a substitute or similar service through use of or access to the Apple Services.

You agree to access and use such Services only as necessary for providing services and functionality for Your Covered Products that are eligible to use such Services and only as permitted by Apple in writing, including in the Documentation. You may not use the Apple Services in any manner that is inconsistent with the terms of this Agreement or that infringes any intellectual property rights of a third party or Apple, or that violates any applicable laws or regulations. You agree that the Apple Services contain proprietary content, information and material owned by Apple and its licensors, and protected by applicable intellectual property and other laws. You may not use such proprietary content, information or materials in any way whatsoever, except for the permitted uses of the Apple Services under this Agreement, or as otherwise agreed by Apple in writing.

You understand there may be storage capacity, transmission, and/or transactional limits for the Apple Services both for You as a developer and for Your end-users. If You reach or Your end-user reaches such limits, then You or Your end-user may be unable to use the Apple Services or may be unable to access or retrieve data from such Services through Your Covered Products or through the applicable end-user accounts. You agree not to charge any fees to end-users solely for access to or use of the Apple Services through Your Covered Products or for any content, data or information provided therein, and You agree not to sell access to the Apple Services in any way. You agree not to fraudulently create any end-user accounts or induce any end-user to violate the terms of their applicable end-user terms or service agreement with Apple or to violate any Apple usage policies for such end-user services. Except as expressly set forth herein, You agree not to interfere with an end-user's ability to access or use any such services.

Apple reserves the right to change, suspend, deprecate, deny, limit, or disable access to the Apple Services, or any part thereof, at any time without notice (including but not limited to revoking entitlements or changing any APIs in the Apple Software that enable access to the Services or not providing You with an entitlement). In no event will Apple be liable for the removal of or disabling of access to any of the foregoing. Apple may also impose limits and restrictions on the use of or access to the Apple Services, may remove the Apple Services for indefinite time periods, may revoke Your access to the Apple Services, or may cancel the Apple Services (or any part thereof) at any time without notice or liability to You and in its sole

discretion.

Apple does not guarantee the availability, accuracy, completeness, reliability, or timeliness of any data or information displayed by any Apple Services. To the extent You choose to use the Apple Services with Your Covered Products, You are responsible for Your reliance on any such data or information. You are responsible for Your use of the Apple Software and Apple Services, and if You use such Services, then it is Your responsibility to maintain appropriate alternate backup of all Your content, information and data, including but not limited to any content that You may provide to Apple for hosting as part of Your use of the Services. You understand and agree that You may not be able to access certain Apple Services upon expiration or termination of this Agreement and that Apple reserves the right to suspend access to or delete content, data or information that You or Your Covered Product have stored through Your use of such Services provided hereunder. You should review the Documentation and policy notices posted by Apple prior to using any Apple Services.

Apple Services may not be available in all languages or in all countries, and Apple makes no representation that any such Services would be appropriate, accurate or available for use in any particular location or product. To the extent You choose to use the Apple Services with Your Applications, You do so at Your own initiative and are responsible for compliance with any applicable laws. Apple reserves the right to charge fees for Your use of the Apple Services. Apple will inform You of any Apple Service fees or fee changes by email and information about such fees will be posted in the Program web portal, App Store Connect, or the CloudKit dashboard. Apple Service availability and pricing are subject to change. Further, Apple Services may not be made available for all Covered Products and may not be made available to all developers. Apple reserves the right to not provide (or to cease providing) the Apple Services to any or all developers at any time in its sole discretion.

2.9 Third-Party Service Providers

Unless otherwise prohibited by Apple in the Documentation or this Agreement, You are permitted to employ or retain a third party ("**Service Provider**") to assist You in using the Apple Software and Services provided pursuant to this Agreement, including, but not limited to, engaging any such Service Provider to maintain and administer Your Applications' servers on Your behalf, provided that any such Service Provider's use of the Apple Software and Services or any materials associated therewith is done solely on Your behalf and only in accordance with these terms. Notwithstanding the foregoing, You may not use a Service Provider to submit an Application to the App Store or use TestFlight on Your behalf. You agree to have a binding written agreement with Your Service Provider with terms at least as restrictive and protective of Apple as those set forth herein. Any actions undertaken by any such Service Provider in relation to Your Applications or use of the Apple Software or Apple Services and/or arising out of this Agreement shall be deemed to have been taken by You, and You (in addition to the Service Provider) shall be responsible to Apple for all such actions (or any inactions). In the event of any actions or inactions by the Service Provider that would constitute a violation of this Agreement or otherwise cause any harm, Apple reserves the right to require You to cease using such Service Provider.

2.10 Updates; No Support or Maintenance

Apple may extend, enhance, or otherwise modify the Apple Software or Services (or any part thereof) provided hereunder at any time without notice, but Apple shall not be obligated to provide You with any Updates to the Apple Software or Services. If Updates are made available by Apple, the terms of this Agreement will govern such Updates, unless the Update is accompanied by a separate license in which case the terms of that license will govern. You understand that such modifications may require You to change or update Your Covered Products. Further, You acknowledge and agree that such modifications may affect Your ability to use, access, or interact with the Apple Software and Services. Apple is not obligated to provide any maintenance, technical or other support for the Apple Software or Services. You acknowledge that Apple has no express or implied obligation to announce or make available any Updates to the Apple

Software or to any Services to anyone in the future. Should an Update be made available, it may have APIs, features, services or functionality that are different from those found in the Apple Software licensed hereunder or the Services provided hereunder.

3. Your Obligations

3.1 General

You certify to Apple and agree that:

- (a) You are of the legal age of majority in the jurisdiction in which You reside (at least 18 years of age in many countries) and have the right and authority to enter into this Agreement on Your own behalf, or if You are entering into this Agreement on behalf of Your company, organization, educational institution, or agency, instrumentality, or department of the federal government, that You have the right and authority to legally bind such entity or organization to the terms and obligations of this Agreement;
- (b) All information provided by You to Apple or Your end-users in connection with this Agreement or Your Covered Products, including without limitation Licensed Application Information or Pass Information, will be current, true, accurate, supportable and complete and, with regard to information You provide to Apple, You will promptly notify Apple of any changes to such information. Further, You agree that Apple may share such information (including email address and mailing address) with third parties who have a need to know for purposes related thereto (e.g., intellectual property questions, customer service inquiries, etc.);
- (c) You will comply with the terms of and fulfill Your obligations under this Agreement, including obtaining any required consents for Your Authorized Developers' use of the Apple Software and Services, and You agree to monitor and be fully responsible for all such use by Your Authorized Developers and their compliance with the terms of this Agreement;
- (d) You will be solely responsible for all costs, expenses, losses and liabilities incurred, and activities undertaken by You and Your Authorized Developers in connection with the Apple Software and Apple Services, the Authorized Test Units, Registered Devices, Your Covered Products and Your related development and distribution efforts, including, but not limited to, any related development efforts, network and server equipment, Internet service(s), or any other hardware, software or services used by You in connection with Your use of any services;
- (e) For the purposes of Schedule 1(if applicable), You represent and warrant that You own or control the necessary rights in order to appoint Apple and Apple Subsidiaries as Your worldwide agent for the delivery of Your Licensed Applications, and that the fulfillment of such appointment by Apple and Apple Subsidiaries shall not violate or infringe the rights of any third party; and
- (f) You will not act in any manner which conflicts or interferes with any existing commitment or obligation You may have and no agreement previously entered into by You will interfere with Your performance of Your obligations under this Agreement.

3.2 Use of the Apple Software and Apple Services

As a condition to using the Apple Software and any Apple Services, You agree that:

- (a) You will use the Apple Software and any services only for the purposes and in the manner expressly permitted by this Agreement and in accordance with all applicable laws and regulations;
- (b) You will not use the Apple Software or any Apple Services for any unlawful or illegal activity, nor to develop any Covered Product, which would commit or facilitate the commission of a crime, or other tortious, unlawful or illegal act;
- (c) Your Application, Library and/or Pass will be developed in compliance with the Documentation and the Program Requirements, the current set of which is set forth in **Section 3.3** below;
- (d) To the best of Your knowledge and belief, Your Covered Products, Licensed Application Information, and Pass Information do not and will not violate, misappropriate, or infringe any Apple or third party copyrights, trademarks, rights of privacy and publicity, trade secrets, patents, or other proprietary or legal rights (e.g., musical composition or performance rights, video rights, photography or image rights, logo rights, third party data rights, etc. for content and materials that may be included in Your Application);

(e) You will not, through use of the Apple Software, Apple Certificates, Apple Services or otherwise, create any Covered Product or other code or program that would disable, hack or otherwise interfere with the Security Solution, or any security, digital signing, digital rights management, verification or authentication mechanisms implemented in or by iOS, watchOS, tvOS, the Apple Software, or any Services, or other Apple software or technology, or enable others to do so (except to the extent expressly permitted by Apple in writing);

(f) You will not, directly or indirectly, commit any act intended to interfere with the Apple Software or Services, the intent of this Agreement, or Apple's business practices including, but not limited to, taking actions that may hinder the performance or intended use of the App Store, Custom App Distribution, or the Program (e.g., submitting fraudulent reviews of Your own Application or any third party application, choosing a name for Your Application that is substantially similar to the name of a third party application in order to create consumer confusion, or squatting on application names to prevent legitimate third party use). Further, You will not engage, or encourage others to engage, in any unlawful, unfair, misleading, fraudulent, improper, or dishonest acts or business practices relating to Your Covered Products (e.g., engaging in bait-and-switch pricing, consumer misrepresentation, deceptive business practices, or unfair competition against other developers); and

(g) Applications for iOS Products, Apple Watch, or Apple TV developed using the Apple Software may be distributed only if selected by Apple (in its sole discretion) for distribution via the App Store, Custom App Distribution, for beta distribution through TestFlight, or through Ad Hoc distribution as contemplated in this Agreement. Passes developed using the Apple Software may be distributed to Your end-users via email, a website or an Application in accordance with the terms of this Agreement, including Attachment 5. Safari Extensions signed with an Apple Certificate may be distributed to Your end-users in accordance with the terms of this Agreement, including Attachment 7. Applications for macOS may be distributed outside of the App Store using Apple Certificates and/or tickets as set forth in **Section 5.3** and **5.4**.

3.3 Program Requirements

Any Application that will be submitted to the App Store, Custom App Distribution or TestFlight, or that will be distributed through Ad Hoc distribution, must be developed in compliance with the Documentation and the Program Requirements, the current set of which is set forth below in this **Section 3.3**. Libraries and Passes are subject to the same criteria:

APIs and Functionality:

3.3.1 Applications may only use Documented APIs in the manner prescribed by Apple and must not use or call any private APIs. Further, macOS Applications submitted to Apple for distribution on the App Store may use only Documented APIs included in the default installation of macOS or as bundled with Xcode and the Mac SDK; deprecated technologies (such as Java) may not be used.

3.3.2 Except as set forth in the next paragraph, an Application may not download or install executable code. Interpreted code may be downloaded to an Application but only so long as such code: (a) does not change the primary purpose of the Application by providing features or functionality that are inconsistent with the intended and advertised purpose of the Application as submitted to the App Store, (b) does not create a store or storefront for other code or applications, and (c) does not bypass signing, sandbox, or other security features of the OS.

An Application that is a programming environment intended for use in learning how to program may download and run executable code so long as the following requirements are met: (i) no more than 80 percent of the Application's viewing area or screen may be taken over with executable code, except as otherwise permitted in the Documentation, (ii) the Application must present a reasonably conspicuous indicator to the user within the Application to indicate that the user is in a programming environment, (iii) the Application must not create a store or storefront for other code or applications, and (iv) the source code provided by the Application must be

completely viewable and editable by the user (e.g., no pre-compiled libraries or frameworks may be included with the code downloaded).

3.3.3 Without Apple's prior written approval or as permitted under **Section 3.3.25 (In-App Purchase API)**, an Application may not provide, unlock or enable additional features or functionality through distribution mechanisms other than the App Store, Custom App Distribution or TestFlight.

3.3.4 An Application for iOS, watchOS, or tvOS may only read data from or write data to an Application's designated container area on the device, except as otherwise specified by Apple. For macOS Applications submitted to Apple for distribution on the App Store: (a) all files necessary for the Application to execute on macOS must be in the Application bundle submitted to Apple and must be installed by the App Store; (b) all localizations must be in the same Application bundle and may not include a suite or collection of independent applications within a single Application bundle; (c) native user interface elements or behaviors of macOS (e.g., the system menu, window sizes, colors, etc.) may not be altered, modified or otherwise changed; (d) You may not use any digital rights management or other copy or access control mechanisms in such Applications without Apple's written permission or as specified in the Documentation; and (e) except as otherwise permitted by **Section 3.3.25 (In-App Purchase API)**, such Applications may not function as a distribution mechanism for software and may not include features or functionality that create or enable a software store, distribution channel or other mechanism for software delivery within such Applications (e.g., an audio application may not include an audio filter plug-in store within the Application).

3.3.5 An Application for an iOS Product must have at least the same features and functionality when run by a user in compatibility mode on an iPad (e.g., an iPhone app running in an equivalent iPhone-size window on an iPad must perform in substantially the same manner as when run on the iPhone; provided that this obligation will not apply to any feature or functionality that is not supported by a particular hardware device, such as a video recording feature on a device that does not have a camera). Further, You agree not to interfere or attempt to interfere with the operation of Your Application in compatibility mode.

3.3.6 You may use the Multitasking services only for their intended purposes as described in the Documentation.

User Interface, Data Collection, Local Laws and Privacy:

3.3.7 Applications must comply with the Human Interface Guidelines (HIG) and other Documentation provided by Apple. You agree to follow the HIG to develop an appropriate user interface and functionality for Your Application that is compatible with the design of Apple-branded products (e.g., a watch App should have a user interface designed for quick interactions in accordance with the HIG's watchOS design themes).

3.3.8 If Your Application captures or makes any video, microphone, or camera recordings, whether saved on the device or sent to a server (e.g., an image, photo, voice or speech capture, or other recording) (collectively "**Recordings**"), a reasonably conspicuous audio, visual or other indicator must be displayed to the user as part of the Application to indicate that a Recording is taking place.

- In addition, any form of data, content or information collection, processing, maintenance, uploading, syncing, storage, transmission, sharing, disclosure or use performed by, through or in connection with Your Application must comply with all applicable privacy laws and regulations as well as any related Program Requirements, including but not limited to any notice or consent requirements.

3.3.9 You and Your Applications (and any third party with whom You have contracted to serve advertising) may not collect user or device data without prior user consent, whether such data is obtained directly from the user or through the use of the Apple Software, Apple Services, or Apple SDKs, and then only to provide a service or function that is directly relevant to the use of the Application, or to serve advertising in accordance with **Sections 3.3.12**. You may not broaden or otherwise change the scope of usage for previously collected user or device data without obtaining prior user consent for such expanded or otherwise changed data collection. You may not use analytics software in Your Application to collect and send device data to a third party. Further, neither You nor Your Application will use any permanent, device-based identifier, or any data derived therefrom, for purposes of uniquely identifying a device.

3.3.10 You must provide clear and complete information to users regarding Your collection, use and disclosure of user or device data, e.g., a description of Your use of user and device data in the App Description on the App Store. Furthermore, You must take appropriate steps to protect such data from unauthorized use, disclosure or access by third parties. If a user ceases to consent or affirmatively revokes consent for Your collection, use or disclosure of his or her user or device data, You (and any third party with whom You have contracted to serve advertising) must promptly cease all such use. You must provide a privacy policy in Your Application, on the App Store, and/or on Your website explaining Your collection, use, disclosure, sharing, retention, and deletion of user or device data. You agree to notify Your users, in accordance with applicable law, in the event of a data breach in which user data collected from Your Application is compromised (e.g., You will send an email notifying Your users if there has been an unintentional disclosure or misuse of their user data).

3.3.11 Applications must comply with all applicable criminal, civil and statutory laws and regulations, including those in any jurisdictions in which Your Applications may be offered or made available. In addition:

- You and the Application must comply with all applicable privacy and data collection laws and regulations with respect to any collection, use or disclosure of user or device data (e.g., a user's IP address, the name of the user's device, and any installed apps associated with a user);
- Applications may not be designed or marketed for the purpose of harassing, abusing, spamming, stalking, threatening or otherwise violating the legal rights (such as the rights of privacy and publicity) of others;
- Neither You nor Your Application may perform any functions or link to any content, services, information or data or use any robot, spider, site search or other retrieval application or device to scrape, mine, retrieve, cache, analyze or index software, data or services provided by Apple or its licensors, or obtain (or try to obtain) any such data, except the data that Apple expressly provides or makes available to You in connection with such services. You agree that You will not collect, disseminate or use any such data for any unauthorized purpose; and
- If Your Application is intended for human subject research or uses the HealthKit APIs for clinical health-related uses which may involve personal data (e.g., storage of health records), then You agree to inform participants of the intended uses and disclosures of their personally identifiable data as part of such research or clinical health uses and to obtain consent from such participants (or their guardians) who will be using Your Application for such research or clinical health purposes. Further, You shall prohibit third parties to whom You provide any de-identified or coded data from re-identifying (or attempting to re-identify) any participants using such data without participant consent, and You agree to require that such third parties pass the foregoing restriction on to any other parties who receive such de-identified or coded data.

Advertising Identifier and Preference; Ad Network APIs:

3.3.12 You and Your Applications (and any third party with whom You have contracted to serve advertising) may use the Advertising Identifier, and any information obtained through the use of the Advertising Identifier, only for the purpose of serving advertising. If a user resets the Advertising Identifier, then You agree not to combine, correlate, link or otherwise associate, either directly or indirectly, the prior Advertising Identifier and any derived information with the reset Advertising Identifier. For Applications compiled for any iOS version or tvOS version providing access to the Ad Support APIs, You agree to check a user's Advertising Preference prior to serving any advertising using the Advertising Identifier, and You agree to abide by a user's setting in the Advertising Preference in Your use of the Advertising Identifier. In addition, You may request to use the Ad Network APIs to track application advertising conversion events. If You are granted permission to use the Ad Network APIs, You agree not to use such APIs, or any information obtained through the use of the Ad Network APIs, for any purpose other than verifying ad validation information as part of an advertising conversion event. You agree not to combine, correlate, link, or otherwise associate, either directly or indirectly, information that is provided as part of the ad validation through the use of the Ad Network APIs with other information You may have about a user. Apple reserves the right to reject any requests to use the Ad Network APIs, in its sole discretion.

Location and Maps; User Consents:

3.3.13 Applications that use location-based APIs (e.g., Core Location, MapKit API) or otherwise provide location-based services may not be designed or marketed for automatic or autonomous control of vehicle behavior, or for emergency or life-saving purposes.

3.3.14 Applications that offer location-based services or functionality, or that otherwise obtain a user's location through the use of the Apple Software or Apple Services, must notify and obtain consent from an individual before his or her location data is collected, transmitted or otherwise used by the Application and then such data must be used only as consented to by the user and as permitted herein. For example, if You use the "Always On" location option in Your Application for the purpose of continuous collection and use of a user's location data, You should provide a clearly defined justification and user benefit that is presented to the user at the time the permission.

3.3.15 If You choose to provide Your own location-based service, data and/or information in conjunction with the Apple maps provided through the Apple Maps Service (e.g., overlaying a map or route You have created on top of an Apple map), You are solely responsible for ensuring that Your service, data and/or information correctly aligns with any Apple maps used. For Applications that use location-based APIs for real-time navigation (including, but not limited to, turn-by-turn route guidance and other routing that is enabled through the use of a sensor), You must have an end-user license agreement that includes the following notice: YOUR USE OF THIS REAL TIME ROUTE GUIDANCE APPLICATION IS AT YOUR SOLE RISK. LOCATION DATA MAY NOT BE ACCURATE.

3.3.16 Applications must not disable, override or otherwise interfere with any Apple-implemented system alerts, warnings, display panels, consent panels and the like, including, but not limited to, those that are intended to notify the user that the user's location data, address book data, calendar, photos, audio data, and/or reminders are being collected, transmitted, maintained, processed or used, or intended to obtain consent for such use. Further, if You have the ability to add a description in such alerts, warnings, and display panels (e.g., information in the purpose strings for the Camera APIs), any such description must be accurate and not misrepresent the scope of use. If consent is denied or withdrawn, Applications may not collect, transmit, maintain, process or utilize such data or perform any other actions for which the user's consent has been denied or withdrawn.

3.3.17 If Your Application (or Your website or web application, as applicable) uses or accesses the MapKit API or MapKit JS from a device running iOS version 6 or later, Your Application (or Your website or web application, as applicable) will access and use the Apple Maps Service. All use of the MapKit API, MapKit JS, and Apple Maps Service must be in accordance with the terms of this Agreement (including the Program Requirements) and Attachment 6 (Additional Terms for the use of the Apple Maps Service). If Your Application uses or accesses the MapKit API from a device running iOS version 5 or earlier, Your Application will access and use the Google Mobile Maps (GMM) service. Such use of the GMM Service is subject to Google's Terms of Service which are set forth at: <http://code.google.com/apis/maps/terms/iPhone.html>. If You do not accept such Google Terms of Service, including, but not limited to all limitations and restrictions therein, You may not use the GMM service in Your Application, and You acknowledge and agree that such use will constitute Your acceptance of such Terms of Service.

Content and Materials:

3.3.18 Any master recordings and musical compositions embodied in Your Application must be wholly-owned by You or licensed to You on a fully paid-up basis and in a manner that will not require the payment of any fees, royalties and/or sums by Apple to You or any third party. In addition, if Your Application will be distributed outside of the United States, any master recordings and musical compositions embodied in Your Application (a) must not fall within the repertoire of any mechanical or performing/communication rights collecting or licensing organization now or in the future and (b) if licensed, must be exclusively licensed to You for Your Application by each applicable copyright owner.

3.3.19 If Your Application includes or will include any other content, You must either own all such content or have permission from the content owner to use it in Your Application.

3.3.20 Applications may be rejected if they contain content or materials of any kind (text, graphics, images, photographs, sounds, etc.) that in Apple's reasonable judgment may be found objectionable or inappropriate, for example, materials that may be considered obscene, pornographic, or defamatory.

3.3.21 Applications must not contain any malware, malicious or harmful code, program, or other internal component (e.g., computer viruses, trojan horses, "backdoors") which could damage, destroy, or adversely affect the Apple Software, services, Apple-branded products, or other software, firmware, hardware, data, systems, services, or networks.

3.3.22 If Your Application includes any FOSS, You agree to comply with all applicable FOSS licensing terms. You also agree not to use any FOSS in the development of Your Application in such a way that would cause the non-FOSS portions of the Apple Software to be subject to any FOSS licensing terms or obligations.

3.3.23 Your Application may include promotional sweepstake or contest functionality provided that You are the sole sponsor of the promotion and that You and Your Application comply with any applicable laws and fulfill any applicable registration requirements in the country or territory where You make Your Application available and the promotion is open. You agree that You are solely responsible for any promotion and any prize, and also agree to clearly state in binding official rules for each promotion that Apple is not a sponsor of, or responsible for conducting, the promotion.

3.3.24 Your Application may include a direct link to a page on Your web site where You include the ability for an end-user to make a charitable contribution, provided that You comply with any applicable laws (which may include providing a receipt), and fulfill any applicable regulation or registration requirements, in the country or territory where You enable the charitable contribution to be made. You also agree to clearly state that Apple is not the fundraiser.

In-App Purchase API:

3.3.25 All use of the In-App Purchase API and related services must be in accordance with the terms of this Agreement (including the Program Requirements) and Attachment 2 (Additional Terms for Use of the In-App Purchase API).

Network Extension Framework:

3.3.26 Your Application must not access the Network Extension Framework unless Your Application is primarily designed for providing networking capabilities, and You have received an entitlement from Apple for such access. You agree to the following if You receive such entitlement:

- You agree to clearly disclose to end-users how You and Your Application will be using their network information and, if applicable, filtering their network data, and You agree to use such data and information only as expressly consented to by the end-user and as expressly permitted herein;
- You agree to store and transmit network information or data from an end-user in a secure and appropriate manner;
- You agree not to divert an end-user's network data or information through any undisclosed, improper, or misleading processes, e.g., to filter it through a website to obtain advertising revenue or spoof a website;
- You agree not to use any network data or information from end-users to bypass or override any end-user settings, e.g., You may not track an end-user's WiFi network usage to determine their location if they have disabled location services for Your Application; and
- Notwithstanding anything to the contrary in **Section 3.3.9**, You and Your Application may not use the Network Extension Framework, or any data or information obtained through the Network Extension Framework, for any purpose other than providing networking capabilities in connection with Your Application (e.g., not for using an end-user's Internet traffic to serve advertising or to otherwise build user profiles for advertising).

Apple reserves the right to not provide You with an entitlement to use the Network Extension Framework in its sole discretion and to revoke such entitlement at any time. In addition, if You would like to use the Access WiFi Information APIs (which provide the WiFi network to which a device is connected), then You must request an entitlement from Apple for such use, and, notwithstanding anything to the contrary in **Section 3.3.9**, You may use such APIs only for providing a service or function that is directly relevant to the Application (e.g., not for serving advertising).

MFi Accessories:

3.3.27 Your Application may interface, communicate, or otherwise interoperate with or control an MFi Accessory (as defined above) through wireless transports or through Apple's lightning or 30-pin connectors only if (i) such MFi Accessory is licensed under Apple's MFi/Works with Apple Program at the time that You initially submit Your Application, (ii) the MFi Licensee has added Your Application to a list of those approved for interoperability with their MFi Accessory, and (iii) the MFi Licensee has received approval from the Apple MFi/Works with Apple Program for such addition.

Regulatory Compliance:

3.3.28 You will fulfill any applicable regulatory requirements, including full compliance with all applicable laws, regulations, and policies related to the manufacturing, marketing, sale and distribution of Your Application in the United States, and in particular the requirements of the U.S. Food and Drug Administration (FDA) as well as other U.S. regulatory bodies such as the FAA, HHS, FTC, and FCC, and the laws, regulations and policies of any other applicable regulatory bodies in any countries or territories where You use or make Your Application available, e.g., MHRA, CFDA. However, You agree that You will not seek any regulatory marketing permissions or make any determinations that may result in any Apple products being deemed regulated or that may impose any obligations or limitations on Apple. By submitting Your Application to Apple for selection for distribution, You represent and warrant that You are in full compliance with any applicable laws, regulations, and policies, including but not limited to all FDA laws, regulations and policies, related to the manufacturing, marketing, sale and distribution of Your Application in the United States, as well as in other countries or territories where You plan to make Your Application available. You also represent and warrant that You will market Your Application only for its cleared or approved intended use/indication for use, and only in strict compliance with applicable regulatory requirements. Upon Apple's request, You agree to promptly provide any such clearance documentation to support the marketing of Your Application. If requested by the FDA or by another government body that has a need to review or test Your Application as part of its regulatory review process, You may provide Your Application to such entity for review purposes. You agree to promptly notify Apple in accordance with the procedures set forth in **Section 14.5** of any complaints or threats of complaints regarding Your Application in relation to any such regulatory requirements, in which case Apple may remove Your Application from distribution.

Cellular Network:

3.3.29 If an Application requires or will have access to the cellular network, then additionally such Application:

- Must comply with Apple's best practices and other guidelines on how Applications should access and use the cellular network; and
- Must not in Apple's reasonable judgment excessively use or unduly burden network capacity or bandwidth.

3.3.30 Because some mobile network operators may prohibit or restrict the use of Voice over Internet Protocol (VoIP) functionality over their network, such as the use of VoIP telephony over a cellular network, and may also impose additional fees, or other charges in connection with VoIP. You agree to inform end-users, prior to purchase, to check the terms of agreement with their operator, for example, by providing such notice in the marketing text that You provide accompanying Your Application on the App Store. In addition, if Your Application allows end-users to send SMS messages or make cellular voice calls, then You must inform the end-user, prior to use of such functionality, that standard text messaging rates or other carrier charges may apply to such use.

Apple Push Notification Service and Local Notifications:

3.3.31 All use of Push Notifications via the Apple Push Notification Service or Local Notifications must be in accordance with the terms of this Agreement (including the Program Requirements) and Attachment 1 (Additional Terms for Apple Push Notification Service and Local Notifications).

Game Center:

3.3.32 All use of the Game Center must be in accordance with the terms of this Agreement (including the Program Requirements) and Attachment 3 (Additional Terms for the Game Center).

iCloud:

3.3.33 All use of the iCloud Storage APIs and CloudKit APIs, as well as Your use of the iCloud service under this Agreement, must be in accordance with the terms of this Agreement (including the Program Requirements) and Attachment 4 (Additional Terms for the use of iCloud).

Wallet:

3.3.34 Your development of Passes, and use of the Pass Type ID and Wallet under this Agreement, must be in accordance with the terms of this Agreement (including the Program Requirements) and Attachment 5 (Additional Terms for Passes).

Additional Services or End-User Pre-Release Software:

3.3.35 From time to time, Apple may provide access to additional Services or pre-release Apple Software for You to use in connection with Your Applications, or as an end-user for evaluation purposes. Some of these may be subject to separate terms and conditions in addition to this Agreement, in which case Your usage will also be subject to those terms and conditions. Such services or software may not be available in all languages or in all countries, and Apple makes no representation that they will be appropriate or available for use in any particular location. To the extent You choose to access such services or software, You do so at Your own initiative and are responsible for compliance with any applicable laws, including but not limited to applicable local laws. To the extent any such software includes Apple's FaceTime or Messages feature, You acknowledge and agree that when You use such features, the telephone numbers and device identifiers associated with Your Authorized Test Units, as well as email addresses and/or Apple ID information You provide, may be used and maintained by Apple to provide and improve such software and features. Certain services made accessible to You through the Apple Software may be provided by third parties. You acknowledge that Apple will not have any liability or responsibility to You or any other person (including to any end-user) for any third-party services or for any Apple services. Apple and its licensors reserve the right to change, suspend, remove, or disable access to any services at any time. In no event will Apple be liable for the removal or disabling of access to any such services. Further, upon any commercial release of such software or services, or earlier if requested by Apple, You agree to cease all use of the pre-release Apple Software or Services provided to You as an end-user for evaluation purposes under this Agreement.

3.3.36 If Your Application accesses the Twitter service through the Twitter API, such access is subject to the Twitter terms of service set forth at: <http://dev.twitter.com>. If You do not accept such Twitter terms of service, including, but not limited to all limitations and restrictions therein, You may not access the Twitter service in Your Application through the use of the Twitter API, and You acknowledge and agree that such use will constitute Your acceptance of such terms of service.

3.3.37 If Your Application accesses data from an end-user's Address Book through the Address Book API, You must notify and obtain consent from the user before his or her Address Book data is accessed or used by Your Application. Further, Your Application may not provide an automated mechanism that transfers only the Facebook Data portions of the end-user's Address Book altogether to a location off of the end-user's device. For the sake of clarity, this does not prohibit an automated transfer of the user's entire Address Book as a whole, so long as user notification and consent requirements have been fulfilled; and does not prohibit enabling users to

transfer any portion of their Address Book data manually (e.g., by cutting and pasting) or enabling them to individually select particular data items to be transferred.

Extensions:

3.3.38 Applications that include extensions in the Application bundle must provide some functionality beyond just the extensions (e.g., help screens, additional settings), unless an Application includes a WatchKit Extension. In addition:

- Extensions (excluding WatchKit Extensions) may not include advertising, product promotion, direct marketing, or In-App Purchase offers in their extension view;
- Extensions may not block the full screen of an iOS Product or Apple TV, or redirect, obstruct or interfere in an undisclosed or unexpected way with a user's use of another developer's application or any Apple-provided functionality or service;
- Extensions may operate only in Apple-designated areas of iOS, watchOS or tvOS as set forth in the Documentation;
- Extensions that provide keyboard functionality must be capable of operating independent of any network access and must include Unicode characters (vs. pictorial images only);
- Any keystroke logging done by any such extension must be clearly disclosed to the end-user prior to any such data being sent from an iOS Product, and notwithstanding anything else in **Section 3.3.9**, such data may be used only for purposes of providing or improving the keyboard functionality of Your Application (e.g., not for serving advertising);
- Any message filtering done by an extension must be clearly disclosed to the end-user, and notwithstanding anything else in **Section 3.3.9**, any SMS or MMS data (whether accessed through a message filtering extension or sent by iOS to a messaging extension's corresponding server) may be used only for purposes of providing or improving the message experience of the user by reducing spam or messages from unknown sources, and must not be used for serving advertising or for any other purpose. Further, SMS or MMS data from a user that is accessed within the extension may not be exported from the extension's designated container area in any way; and
- Your Application must not automate installation of extensions or otherwise cause extensions to be installed without the user's knowledge, and You must accurately specify to the user the purpose and functionality of the extension.

HealthKit APIs and Motion & Fitness APIs:

3.3.39 Your Application must not access the HealthKit APIs or Motion & Fitness APIs unless it is primarily designed to provide health, motion, and/or fitness services, and this usage is clearly evident in Your marketing text and user interface. In addition:

- Notwithstanding anything to the contrary in **Section 3.3.9**, You and Your Application may not use the HealthKit APIs or the Motion & Fitness APIs, or any information obtained through the HealthKit APIs or the Motion & Fitness APIs, for any purpose other than providing health, motion, and/or fitness services in connection with Your Application (e.g., not for serving advertising);
- You must not use the HealthKit APIs or the Motion & Fitness APIs, or any information obtained through the HealthKit APIs or the Motion & Fitness APIs, to disclose or provide an end-user's health, motion, and/or fitness information to a third party without prior express end-user consent, and then only for purposes of enabling the third party to provide health, motion, and/or fitness services as permitted herein. For example, You must not share or sell an end-user's health

information collected through the HealthKit APIs or Motion & Fitness APIs to advertising platforms, data brokers, or information resellers. For clarity, You may allow end-users to consent to share their data with third parties for medical research purposes; and

- You agree to clearly disclose to end-users how You and Your Application will be using their health, motion, and/or fitness information and to use it only as expressly consented to by the end-user and as expressly permitted herein.

3.3.40 If Your Application accesses NikeFuel points information through the HealthKit APIs, then Your use of the NikeFuel points information is subject to the NikeFuel points terms of service set forth at: <https://developer.nike.com/healthkit/nikefuel-use-agreement.html>. If You do not accept such NikeFuel terms of service, including, but not limited to all limitations and restrictions therein, You may not use such NikeFuel points information in Your Application, and You acknowledge and agree that such use will constitute Your acceptance of such terms of service.

HomeKit APIs:

3.3.41 Your Application must not access the HomeKit APIs unless it is primarily designed to provide home configuration or home automation services (e.g., turning on a light, lifting a garage door) for Licensed HomeKit Accessories and this usage is clearly evident in Your marketing text and user interface. You agree not to use the HomeKit APIs for any purpose other than interfacing, communicating, interoperating with or otherwise controlling a Licensed HomeKit Accessory or for using the HomeKit Database, and then only for home configuration or home automation purposes in connection with Your Application. In addition:

- Your Application may use information obtained from the HomeKit APIs and/or the HomeKit Database only on an iOS Product and may not export, remotely access or transfer such information off a device (e.g., a lock password cannot be sent off an end-user's device to be stored in an external non-Apple database); and
- Notwithstanding anything to the contrary in **Section 3.3.9**, You and Your Application may not use the HomeKit APIs, or any information obtained through the HomeKit APIs or through the HomeKit Database, for any purpose other than providing or improving home configuration or home automation services in connection with Your Application (e.g., not for serving advertising).

Apple Pay APIs:

3.3.42 Your Application may use the Apple Pay APIs solely for the purpose of facilitating payment transactions that are made by or through Your Application, and only for the purchase of goods and services that are to be used outside of any iOS Product or Apple Watch, unless otherwise permitted by Apple in writing. For clarity, nothing in this **Section 3.3.42** supplants any of the rules or requirements for the use of the In-App Purchase API, including but not limited to **Section 3.3.3** and the guidelines. In addition:

- You acknowledge and agree that Apple is not a party to any payment transactions facilitated through the use of the Apple Pay APIs and is not responsible for any such transactions, including but not limited to the unavailability of any end-user payment cards or payment fraud. Such payment transactions are between You and Your bank, acquirer, card networks, or other parties You utilize for transaction processing, and You are responsible for complying with any agreements You have with such third parties. In some cases, such agreements may contain terms specifying specific rights, obligations or limitations that You accept and assume in connection with Your decision to utilize the functionality of the Apple Pay APIs;
- You agree to store any private keys provided to You as part of Your use of the Apple Pay APIs in a secure manner (e.g., encrypted on a server) and in accordance with the Documentation. You agree not to store any end-user payment information in an unencrypted manner on an iOS

Product. For clarity, You may not decrypt any such end-user payment information on an iOS Product;

- You agree not to call the Apple Pay APIs or otherwise attempt to gain information through the Apple Pay APIs for purposes unrelated to facilitating end-user payment transactions; and
- If You use Apple Pay APIs in Your Application, then You agree to use commercially reasonable efforts to include Apple Pay Cash as a payment option with Your use of the Apple Pay APIs in accordance with the Documentation and provided that Apple Pay Cash is available in the jurisdiction in which the Application is distributed.

3.3.43 As part of facilitating an end-user payment transaction through the Apple Pay APIs, Apple may provide You (whether You are acting as the Merchant or as an Intermediary Party) with an Apple Pay Payload. If You receive an Apple Pay Payload, then You agree to the following:

- If You are acting as the Merchant, then You may use the Apple Pay Payload to process the end-user payment transaction and for other uses that You disclose to the end-user, and only in accordance with applicable law; and
- If You are acting as an Intermediary Party, then:
 - (a) You may use the Apple Pay Payload only for purposes of facilitating the payment transaction between the Merchant and the end-user and for Your own order management purposes (e.g., customer service) as part of such transaction;
 - (b) You agree that You will not hold the Apple Pay Payload data for any longer than necessary to fulfill the payment transaction and order management purposes for which it was collected;
 - (c) You agree not to combine data obtained through the Apple Pay APIs, including but not limited to, the Apple Pay Payload with any other data that You may have about such end-user (except to the limited extent necessary for order management purposes). For clarity, an Intermediary Party may not use data obtained through the Apple Pay APIs for advertising or marketing purposes, for developing or enhancing a user profile, or to otherwise target end-users;
 - (d) You agree to disclose to end-users that You are an Intermediary Party to the transaction and to provide the identity of the Merchant for a particular transaction on the Apple Pay Payment Sheet (in addition to including Your name as an Intermediary Party); and
 - (e) If You use a Merchant, then You will be responsible for ensuring that the Merchant You select uses the Apple Pay Payload provided by You only for purposes of processing the end-user payment transaction and for other uses they have disclosed to the end-user, and only in accordance with applicable law. You agree to have a binding written agreement with such Merchant with terms at least as restrictive and protective of Apple as those set forth herein. Any actions undertaken by any such Merchant in relation to such Apple Pay Payload or the payment transaction shall be deemed to have been taken by You, and You (in addition to such Merchant) shall be responsible to Apple for all such actions (or any inactions). In the event of any actions or inactions by such Merchant that would constitute a violation of this Agreement or otherwise cause any harm, Apple reserves the right to require You to cease using such Merchant.

SiriKit:

3.3.44 Your Application may register as a destination to use the Apple-defined SiriKit domains, but only if Your Application is designed to provide relevant responses to a user, or otherwise carry out the user's request or intent, in connection with the applicable SiriKit domain (e.g., ride sharing) that is supported by Your Application and this usage is clearly evident in Your marketing text and user interface. In addition, Your Application may contribute actions to SiriKit, but only if such actions are tied to user behavior or activity within Your Application and for which You can provide a relevant response to the user. You agree not to submit false information through SiriKit about any such user activity or behavior or otherwise interfere with the predictions provided by SiriKit (e.g., SiriKit donations should be based on actual user behavior).

3.3.45 Your Application may use information obtained through SiriKit only on supported Apple products and may not export, remotely access or transfer such information off a device except to the extent necessary to provide or improve relevant responses to a user or carry out a user's request or in connection with Your Application. Notwithstanding anything to the contrary in **Section 3.3.9**, You and Your Application may not use SiriKit, or any information obtained through SiriKit, for any purpose other than providing relevant responses to a user or otherwise carrying out a user's request or intent in connection with an SiriKit domain, intent, or action supported by Your Application and/or for improving Your Application's responsiveness to user requests (e.g., not for serving advertising).

3.3.46 If Your Application uses SiriKit to enable audio data to be processed by Apple, You agree to clearly disclose to end-users that You and Your Application will be sending their recorded audio data to Apple for speech recognition, processing and/or transcription purposes, and that such audio data may be used to improve and provide Apple products and services. You further agree to use such audio data, and recognized text that may be returned from SiriKit, only as expressly consented to by the end-user and as expressly permitted herein.

Single Sign-On API:

3.3.47 You must not access or use the Single Sign-On API unless You are a Multi-channel Video Programming Distributor (MVPD) or unless Your Application is primarily designed to provide authenticated video programming via a subscription-based MVPD service, and You have received an entitlement from Apple to use the Single Sign-On API. If You have received such an entitlement, You are permitted to use the Single Sign-On API solely for the purpose of authenticating a user's entitlement to access Your MVPD content for viewing on an Apple Product, in accordance with the Single Sign-on Specification. Any such use must be in compliance with the Documentation for the Single Sign-On Specification. You acknowledge that Apple reserves the right to not provide You such an entitlement, and to revoke such entitlement, at any time, in its sole discretion.

If You use the Single Sign-On API, You will be responsible for providing the sign-in page accessed by users via the Single Sign-On API where users sign in to authenticate their right to access Your MVPD content. You agree that such sign-in page will not display advertising, and that the content and appearance of such page will be subject to Apple's prior review and approval. If You use the Single Sign-On API and Apple provides an updated version of such API and/or the Single Sign-on Specification, You agree to update Your implementation to conform with the newer version and specification within 3 months after receiving the update from Apple.

You authorize Apple to use, reproduce, and display the trademarks provided by You for use in connection with the Single-Sign-On feature, including use in the user interface screens in Apple products where the user selects the provider and authenticates through Single Sign-on, and/or to provide the user with a list of apps that are accessible to such user through Single Sign-On. You also grant Apple the right to use screen shots and images of such user interface, including but not limited to use in instructional materials, training materials, marketing materials, and advertising in any medium. Data provided via the Single Sign-On API will be considered Licensed Application Information hereunder, but will be subject to the use limitations set forth in this Section.

You must not collect, store or use data provided via the Single Sign-On API for any purpose other than to authenticate a user's entitlement to access Your MVPD content on an Apple product, to provide the user access to Your MVPD content, and/or to address performance and technical problems with Your MVPD service. You will not provide or disclose data, content or information obtained from use of the Single Sign-On API to any other party except for authentication information provided to a video programming provider whose programming is offered as part of an MVPD subscription offered by You, and solely for the purpose of authenticating the user's entitlement to access such video programming on an Apple product under the user's MVPD

subscription.

TV App API:

3.3.48 You may not use the TV App API unless (a) Your Application is primarily designed to provide video programming, (b) You have received an entitlement from Apple, and (c) Your use is in accordance with the TV App Specification. To the extent that You provide TV App Data to Apple, Apple may store, use, reproduce and display such data solely for the purposes of: (a) providing information and recommendations to users of TV App Features, (b) enabling users to link from such recommendations and/or information to content for viewing via Your Licensed Application, and/or (c) servicing, maintenance, and optimization of TV App Features. With respect to any TV App Data that has been submitted by You prior to termination of this Agreement, Apple may continue to use such data in accordance with this **Section 3.3.48** after termination of this Agreement. TV App Data will be considered Licensed Application Information under this Agreement, but will be subject to the use limitations set forth in this Section. You acknowledge that Apple reserves the right to not include Your Licensed Application in the TV App Features, in its sole discretion.

Apple will obtain user consent based on the user's Apple ID before including Your Licensed Application in the TV App Features displayed under that Apple ID. Apple will also provide users with the ability to withdraw such consent at any time thereafter and to delete their TV App Data from Apple's systems. In addition, You may solicit user consent based upon Your own subscriber ID system. You are responsible for Your compliance with all applicable laws, including any applicable local laws for obtaining user consent with respect to Your provision of TV App Data to Apple.

Spotlight-Image-Search Service:

3.3.49 To the extent that You provide Apple's spotlight-image-search service with access to any of Your domains that are associated with Your Licensed Applications (the "Associated Domain(s)"), You hereby grant Apple permission to crawl, scrape, copy, transmit and/or cache the content found in the Associated Domain(s) (the "Licensed Content") for the purposes set forth in this section. The Licensed Content shall be considered Licensed Application Information under this Agreement. You hereby further grant Apple a license to use, make, have made, reproduce, crop and/or modify the file format, resolution and appearance of the Licensed Content (for the purposes of reducing file size, converting to a supported file type and/or displaying thumbnails), and to publicly display, publicly perform, integrate, incorporate and distribute the Licensed Content to enhance search, discovery, and end-user distribution of the Licensed Content in Apple's Messages feature. Upon the termination of this Agreement for any reason, end users of Apple-branded products will be permitted to continue using and distributing all Licensed Content that they obtained through the use of Apple-branded products prior to such termination.

MusicKit:

3.3.50 You agree not to call the MusicKit APIs or use MusicKit JS (or otherwise attempt to gain information through the MusicKit APIs or MusicKit JS) for purposes unrelated to facilitating access to Your end users' Apple Music subscriptions. If You access the MusicKit APIs or MusicKit JS, then You must follow the Apple Music Identity Guidelines. You agree not to require payment for or indirectly monetize access to the Apple Music service (e.g. in-app purchase, advertising, requesting user info) through Your use of the MusicKit APIs, MusicKit JS, or otherwise in any way. In addition:

- If You choose to offer music playback through the MusicKit APIs or MusicKit JS, full songs must be enabled for playback, and users must initiate playback and be able to navigate playback using standard media controls such as "play," "pause," and "skip", and You agree to not misrepresent the functionality of these controls;

- You may not, and You may not permit Your end users to, download, upload, or modify any MusicKit Content and MusicKit Content cannot be synchronized with any other content, unless otherwise permitted by Apple in the Documentation;
- You may play MusicKit Content only as rendered by the MusicKit APIs or MusicKit JS and only as permitted in the Documentation (e.g., album art and music-related text from the MusicKit API may not be used separately from music playback or managing playlists);
- Metadata from users (such as playlists and favorites) may be used only to provide a service or function that is clearly disclosed to end users and that is directly relevant to the use of Your Application, website, or web application, as determined in Apple's sole discretion; and
- You may use MusicKit JS only as a stand-alone library in Your Application, website, or web application and only as permitted in the Documentation (e.g., You agree not to recombine MusicKit JS with any other JavaScript code or separately download and re-host it).

DeviceCheck APIs:

3.3.51 If You use DeviceCheck APIs to store DeviceCheck Data, then You must provide a mechanism for customers to contact You to reset those values, if applicable (e.g. resetting a trial subscription or re-authorizing certain usage when a new user acquires the device). You may not rely on the DeviceCheck Data as a single identifier of fraudulent conduct and must use the DeviceCheck Data only in connection with other data or information, e.g., the DeviceCheck Data cannot be the sole data point since a device may have been transferred or resold. Apple reserves the right to delete any DeviceCheck Data at any time in its sole discretion, and You agree not to rely on any such Data. Further, You agree not to share the DeviceCheck tokens You receive from Apple with any third party, except a Service Provider acting on Your behalf.

Face Data:

3.3.52 If Your Application accesses Face Data, then You must do so only to provide a service or function that is directly relevant to the use of the Application, and You agree to inform users of Your intended uses and disclosures of Face Data by Your Application and to obtain clear and conspicuous consent from such users before any collection or use of Face Data. Notwithstanding anything to the contrary in **Section 3.3.9**, neither You nor Your Application (nor any third party with whom You have contracted to serve advertising) may use Face Data for serving advertising or for any other unrelated purposes. In addition:

- You may not use Face Data in a manner that will violate the legal rights of Your users (or any third parties) or to provide an unlawful, unfair, misleading, fraudulent, improper, exploitative, or objectionable user experience and then only in accordance with the Documentation;
- You may not use Face Data for authentication, advertising, or marketing purposes, or to otherwise target an end-user in a similar manner;
- You may not use Face Data to build a user profile, or otherwise attempt, facilitate, or encourage third parties to identify anonymous users or reconstruct user profiles based on Face Data;
- You agree not to transfer, share, sell, or otherwise provide Face Data to advertising platforms, analytics providers, data brokers, information resellers or other such parties; and
- Face Data may not be shared or transferred off the user's device unless You have obtained clear and conspicuous consent for the transfer and the Face Data is used only in fulfilling a specific service or function for Your Application (e.g., a face mesh is used to display an image of the user within the Application) and only in accordance with these terms and the Documentation.

You agree to require that Your service providers use Face Data only to the limited extent consented to by the user and only in accordance with these terms.

ClassKit APIs:

3.3.53 Your Application must not include the ClassKit APIs unless it is primarily designed to provide educational services, and this usage is clearly evident in Your marketing text and user interface. You agree not to submit false or inaccurate data through the ClassKit APIs or to attempt to redefine the assigned data categories for data submitted through the ClassKit APIs (e.g., student location data is not a supported data type and should not be submitted).

4. Changes to Program Requirements or Terms

Apple may change the Program Requirements or the terms of this Agreement at any time. New or modified Program Requirements will not retroactively apply to Applications already in distribution via the App Store or Custom App Distribution; provided however that You agree that Apple reserves the right to remove Applications from the App Store or Custom App Distribution that are not in compliance with the new or modified Program Requirements at any time. In order to continue using the Apple Software, Apple Certificates or any Services, You must accept and agree to the new Program Requirements and/or new terms of this Agreement. If You do not agree to new Program Requirements or new terms, Your use of the Apple Software, Apple Certificates and any Services will be suspended or terminated by Apple. You agree that Your acceptance of such new Agreement terms or Program Requirements may be signified electronically, including without limitation, by Your checking a box or clicking on an “agree” or similar button. Nothing in this Section shall affect Apple's rights under **Section 5 (Apple Certificates; Revocation)**.

5. Apple Certificates; Revocation

5.1 Certificate Requirements

All Applications must be signed with an Apple Certificate in order to be installed on Authorized Test Units, Registered Devices, or submitted to Apple for distribution via the App Store, Custom App Distribution, or TestFlight. Similarly, all Passes must be signed with an Apple Certificate to be recognized and accepted by Wallet. Safari Extensions must be signed with an Apple Certificate to run in Safari on macOS. You must use a Website ID to send Safari Push Notifications to the macOS desktop of users who have opted in to receive such Notifications for Your Site through Safari on macOS. You may also obtain other Apple Certificates and keys for other purposes as set forth herein and in the Documentation.

In relation to this, You represent and warrant to Apple that:

- (a) You will not take any action to interfere with the normal operation of any Apple Certificates, keys, or Provisioning Profiles;
- (b) You are solely responsible for preventing any unauthorized person or organization from having access to Your Apple Certificates and keys, and You will use Your best efforts to safeguard Your Apple Certificates and keys from compromise (e.g., You will not upload Your Apple Certificate for App Store distribution to a cloud repository for use by a third-party);
- (c) You agree to immediately notify Apple in writing if You have any reason to believe there has been a compromise of any of Your Apple Certificates or keys;
- (d) You will not provide or transfer Apple Certificates or keys provided under this Program to any third party (except for a Service Provider who is using them on Your behalf in compliance with this Agreement and only to the limited extent expressly permitted by Apple in the Documentation or this Agreement (e.g., You are prohibited from providing or transferring Your Apple Certificates that are used for distribution or submission to the App Store to a Service Provider), and You will not use Your Apple Certificates to sign any third party's application, pass, extension, notification, implementation, or site;
- (e) You will use any Apple Certificates or keys provided under this Agreement solely as permitted by Apple and in accordance with the Documentation; and

(f) You will use Apple Certificates provided under this Program exclusively for the purpose of signing Your Passes, signing Your Safari Extensions, signing Your Site's registration bundle, accessing the APN service, and/or signing Your Applications for testing, submission to Apple and/or for limited distribution for use on Registered Devices or Authorized Test Units as contemplated under this Program, or as otherwise permitted by Apple, and only in accordance with this Agreement. As a limited exception to the foregoing, You may provide versions of Your iOS Applications to Your Service Providers to sign with their Apple-issued iOS development certificates, but solely for purposes of having them perform testing on Your behalf of Your Applications on Apple-branded products running iOS and provided that all such testing is conducted internally by Your Service Providers (e.g., no outside distribution of Your Applications) and that Your Applications are deleted within a reasonable period of time after such testing is performed. Further, You agree that Your Service Provider may use the data obtained from performing such testing services only for purposes of providing You with information about the performance of Your Applications (e.g., Your Service Provider is prohibited from aggregating Your Applications' test results with other developers' test results).

You further represent and warrant to Apple that the licensing terms governing Your Application, Your Safari Extension, Your Site's registration bundle, and/or Your Pass, or governing any third party code or FOSS included in Your Covered Products, will be consistent with and not conflict with the digital signing or content protection aspects of the Program or any of the terms, conditions or requirements of the Program or this Agreement. In particular, such licensing terms will not purport to require Apple (or its agents) to disclose or make available any of the keys, authorization codes, methods, procedures, data or other information related to the Security Solution, digital signing or digital rights management mechanisms or security utilized as part of any Apple software, including the App Store. If You discover any such inconsistency or conflict, You agree to immediately notify Apple of it and will cooperate with Apple to resolve such matter. You acknowledge and agree that Apple may immediately cease distribution of any affected Licensed Applications or Passes, and may refuse to accept any subsequent Application or Pass submissions from You until such matter is resolved to Apple's reasonable satisfaction.

5.2 Relying Party Certificates

The Apple Software and Services may also contain functionality that permits digital certificates, either Apple Certificates or other third-party certificates, to be accepted by the Apple Software or Services (e.g., Apple Pay) and/or to be used to provide information to You (e.g., transaction receipts). It is Your responsibility to verify the validity of any certifications or transaction receipts You may receive from Apple prior to relying on them (e.g., You should verify that the receipt came from Apple prior to any delivery of content to an end-user through the use of the In-App Purchase API). You are solely responsible for Your decision to rely on any such certificates and receipts, and Apple will not be liable for Your failure to verify that any such certificates or transaction receipts came from Apple (or third parties) or for Your reliance on Apple Certificates or other digital certificates.

5.3 Notarized Applications for macOS

To have Your macOS Application notarized, You may request a digital file for authentication of Your Application from Apple's digital notary service (a "**Ticket**"). You can use this Ticket with Your Apple Certificate to receive an improved developer signing and user experience for Your Application on macOS. To request this Ticket from Apple's digital notary service, You must upload Your Application to Apple through Apple's developer tools (or other requested mechanisms) for purposes of continuous security checking. This continuous security checking will involve automated scanning, testing, and analysis of Your Application by Apple for malware or other harmful or suspicious code or components or security flaws, and, in limited cases, a manual, technical investigation of Your Application by Apple for such purposes. By uploading Your Application to Apple for this digital notary service, You agree that Apple may perform such security checks on Your Application for purposes of detecting malware or other harmful or suspicious code or components, and You agree that Apple may retain and use Your Application for subsequent security checks for the same purposes.

If Apple authenticates Your developer signature and Your Application passes the initial security checks, Apple may provide You with a Ticket to use with Your Apple Certificate. Apple reserves the right to issue Tickets in its sole discretion, and Apple may revoke Tickets at any time in its sole discretion in the event that Apple has reason to believe, or has reasonable suspicions, that Your Application contains malware or malicious, suspicious or harmful code or components or that Your developer identity signature has been compromised. You may request that Apple revoke Your Ticket at any time by emailing: product-security@apple.com. If Apple revokes Your Ticket or Your Apple Certificate, then Your Application may no longer run on macOS.

You agree to cooperate with Apple regarding Your Ticket requests and to not hide, attempt to bypass, or misrepresent any part of Your Application from Apple's security checks or otherwise hinder Apple from being able to perform such security checks. You agree not to represent that Apple has performed a security check or malware detection for Your Application or that Apple has reviewed or approved Your Application for purposes of issuing a Ticket to You from Apple's digital notary service. You acknowledge and agree that Apple is performing security checks solely in connection with Apple's digital notary service and that such security checks should not be relied upon for malware detection or security verification of any kind. You are fully responsible for Your own Application and for ensuring that Your Application is safe, secure, and operational for Your end-users (e.g., informing Your end-users that Your Application may cease to run if there is an issue with malware). Apple will not be liable to You or any third-party for any inability or failure to detect any malware or other suspicious, harmful code or components in Your Application or other security issues, or for any ticket issuance or revocation. Apple shall not be responsible for any costs, expenses, damages, losses or other liabilities You may incur as a result of Your Application development, use of the Apple Software, Apple Services (including this digital notary service), or Apple Certificates, tickets, or participation in the Program, including without limitation the fact that Apple performs security checks on Your Application.

5.4 Certificate Revocation

Except as otherwise set forth herein, You may revoke Apple Certificates issued to You at any time. If You want to revoke the Apple Certificates used to sign Your Passes and/or issued to You for use with Your macOS Applications distributed outside of the App Store, You may request that Apple revoke these Apple Certificates at any time by emailing: product-security@apple.com. Apple also reserves the right to revoke any Apple Certificates at any time, in its sole discretion. By way of example only, Apple may choose to do this if: (a) any of Your Apple Certificates or corresponding private keys have been compromised or Apple has reason to believe that either have been compromised; (b) Apple has reason to believe or has reasonable suspicions that Your Covered Products contain malware or malicious, suspicious or harmful code or components (e.g., a software virus); (c) Apple has reason to believe that Your Covered Products adversely affect the security of Apple-branded products, or any other software, firmware, hardware, data, systems, or networks accessed or used by such products; (d) Apple's certificate issuance process is compromised or Apple has reason to believe that such process has been compromised; (e) You breach any term or condition of this Agreement; (f) Apple ceases to issue the Apple Certificates for the Covered Product under the Program; (g) Your Covered Product misuses or overburdens any Services provided hereunder; or (h) Apple has reason to believe that such action is prudent or necessary. Further, You understand and agree that Apple may notify end-users of Covered Products that are signed with Apple Certificates when Apple believes such action is necessary to protect the privacy, safety or security of end-users, or is otherwise prudent or necessary as determined in Apple's reasonable judgment. Apple's Certificate Policy and Certificate Practice Statements may be found at: <http://www.apple.com/certificateauthority>.

6. Application Submission and Selection

6.1 Submission to Apple for App Store or Custom App Distribution

You may submit Your Application for consideration by Apple for distribution via the App Store or Custom App Distribution once You decide that Your Application has been adequately tested and

is complete. By submitting Your Application, You represent and warrant that Your Application complies with the Documentation and Program Requirements then in effect as well as with any additional guidelines that Apple may post on the Program web portal or in App Store Connect. You further agree that You will not attempt to hide, misrepresent or obscure any features, content, services or functionality in Your submitted Applications from Apple's review or otherwise hinder Apple from being able to fully review such Applications. In addition, You agree to inform Apple in writing through App Store Connect if Your Application connects to a physical device, including but not limited to an MFi Accessory, and, if so, to disclose the means of such connection (whether iAP, Bluetooth Low Energy (BLE), the headphone jack, or any other communication protocol or standard) and identify at least one physical device with which Your Application is designed to communicate. If requested by Apple, You agree to provide access to or samples of any such devices at Your expense (samples will not be returned). You agree to cooperate with Apple in this submission process and to answer questions and provide information and materials reasonably requested by Apple regarding Your submitted Application, including insurance information You may have relating to Your Application, the operation of Your business, or Your obligations under this Agreement. Apple may require You to carry certain levels of insurance for certain types of Applications and name Apple as an additional insured. If You make any changes to an Application (including to any functionality made available through use of the In-App Purchase API) after submission to Apple, You must resubmit the Application to Apple. Similarly all bug fixes, updates, upgrades, modifications, enhancements, supplements to, revisions, new releases and new versions of Your Application must be submitted to Apple for review in order for them to be considered for distribution via the App Store or Custom App Distribution, except as otherwise permitted by Apple.

6.2 App Thinning and Bundled Resources

As part of Your Application submission to the App Store or Custom App Distribution, Apple may optimize Your Application to target specific devices by repackaging certain functionality and delivered resources (as described in the Documentation) in Your Application so that it will run more efficiently and use less space on target devices ("**App Thinning**"). For example, Apple may deliver only the 32-bit or 64-bit version of Your Application to a target device, and Apple may not deliver icons or launch screens that would not render on the display of a target device. You agree that Apple may use App Thinning to repackage Your Application in order to deliver a more optimized version of Your Application to target devices.

As part of App Thinning, You can also request that Apple deliver specific resources for Your Application (e.g., GPU resources) to target devices by identifying such bundled resources as part of Your code submission ("**Bundled Resources**"). You can define such Bundled Resources to vary the timing or delivery of assets to a target device (e.g., when a user reaches a certain level of a game, then the content is delivered on-demand to the target device). App Thinning and Bundled Resources are not available for all Apple operating systems, and Apple may continue to deliver full Application binaries to some target devices.

6.3 Bitcode Submissions

For Application submissions to the App Store or Custom App Distribution for some Apple operating systems (e.g., for watchOS), Apple may require You to submit an intermediate representation of Your Application in binary file format for the LLVM compiler ("**Bitcode**"). You may also submit Bitcode for other supported Apple operating systems. Such Bitcode submission will allow Apple to compile Your Bitcode to target specific Apple-branded devices and to recompile Your Bitcode for subsequent releases of Your Application for new Apple hardware, software, and/or compiler changes. When submitting Bitcode, You may choose whether or not to include symbols for Your Application in the Bitcode; however, if You do not include symbols, then Apple will not be able to provide You with symbolicated crash logs or other diagnostic information as set forth in **Section 6.5 (Improving Your Application)** below. Further, You may be required to submit a compiled binary of Your Application with Your Bitcode.

By submitting Bitcode to Apple, You authorize Apple to compile Your Bitcode into a resulting binary that will be targeted for specific Apple-branded devices and to recompile Your Bitcode for subsequent rebuilding and recompiling of Your Application for updated hardware, software, and/or compiler changes (e.g., if Apple releases a new device, then Apple may use Your Bitcode to update Your Application without requiring resubmission). You agree that Apple may compile such Bitcode for its own internal use in testing and improving Apple's developer tools, and for purposes of analyzing and improving how applications can be optimized to run on Apple's operating systems (e.g., which frameworks are used most frequently, how a certain framework consumes memory, etc.). You may use Apple's developer tools to view and test how Apple may process Your Bitcode into machine code binary form. Bitcode is not available for all Apple operating systems.

6.4 TestFlight Submission

If You would like to distribute Your Application to Beta Testers outside of Your company or organization through TestFlight, You must first submit Your Application to Apple for review. By submitting such Application, You represent and warrant that Your Application complies with the Documentation and Program Requirements then in effect as well as with any additional guidelines that Apple may post on the Program web portal or in App Store Connect. Thereafter, Apple may permit You to distribute updates to such Application directly to Your Beta Testers without Apple's review, unless such an update includes significant changes, in which case You agree to inform Apple in App Store Connect and have such Application re-reviewed. Apple reserves the right to require You to cease distribution of Your Application through TestFlight, and/or to any particular Beta Tester, at any time in its sole discretion.

6.5 Improving Your Application

Further, if Your Application is submitted for distribution via the App Store, Custom App Distribution or TestFlight, You agree that Apple may use Your Application for the limited purpose of compatibility testing of Your Application with Apple products and services, for finding and fixing bugs and issues in Apple products and services and/or Your Applications, for internal use in evaluating iOS, watchOS, tvOS, and/or macOS performance issues in or with Your Application, for security testing, and for purposes of providing other information to You (e.g., crash logs). Except as otherwise set forth herein, You may opt in to send app symbol information for Your Application to Apple, and if You do so, then You agree that Apple may use such symbols to symbolicate Your Application for purposes of providing You with symbolicated crash logs and other diagnostic information. In the event that Apple provides You with crash logs or other diagnostic information for Your Application, You agree to use such crash logs and information only for purposes of fixing bugs and improving the performance of Your Application and related products. You may also collect numeric strings and variables from Your Application when it crashes, so long as You collect such information only in an anonymous, non-personal manner and do not recombine, correlate, or use such information to attempt to identify or derive information about any particular end-user or device.

6.6 App Analytics

To the extent that Apple provides an Analytics service through App Store Connect for Applications distributed through the App Store, You agree to use any data provided through such App Analytics service solely for purposes of improving Your Applications and related products. Further, You agree not to provide such information to any third parties, except for a Service Provider who is assisting You in processing and analyzing such data on Your behalf and who is not permitted to use it for any other purpose or disclose it to any other party. For clarity, You must not aggregate (or permit any third-party to aggregate) analytics information provided to You by Apple for Your Applications as part of this App Analytics service with other developers' analytics information, or contribute such information to a repository for cross-developer analytics. You must not use the App Analytics service or any analytics data to attempt to identify or derive information about any particular end-user or device.

6.7 Compatibility Requirement with Current Shipping OS Version

Applications that are selected for distribution via the App Store must be compatible with the currently shipping version of Apple's applicable operating system (OS) software at the time of submission to Apple, and such Applications must stay current and maintain compatibility with each new release of the applicable OS version so long as such Applications are distributed through the App Store. You understand and agree that Apple may remove Applications from the App Store when they are not compatible with the then-current shipping release of the OS at any time in its sole discretion.

6.8 Selection by Apple for Distribution

You understand and agree that if You submit Your Application to Apple for distribution via the App Store, Custom App Distribution, or TestFlight, Apple may, in its sole discretion:

- (a) determine that Your Application does not meet all or any part of the Documentation or Program Requirements then in effect;
- (b) reject Your Application for distribution for any reason, even if Your Application meets the Documentation and Program Requirements; or
- (c) select and digitally sign Your Application for distribution via the App Store, Custom App Distribution, or TestFlight.

Apple shall not be responsible for any costs, expenses, damages, losses (including without limitation lost business opportunities or lost profits) or other liabilities You may incur as a result of Your Application development, use of the Apple Software, Apple Services, or Apple Certificates or participation in the Program, including without limitation the fact that Your Application may not be selected for distribution via the App Store or Custom App Distribution. You will be solely responsible for developing Applications that are safe, free of defects in design and operation, and comply with applicable laws and regulations. You will also be solely responsible for any documentation and end-user customer support and warranty for such Applications. The fact that Apple may have reviewed, tested, approved or selected an Application will not relieve You of any of these responsibilities.

7. Distribution of Applications and Libraries**Applications:**

Applications developed under this Agreement for iOS, watchOS, or tvOS may be distributed in four ways: (1) through the App Store, if selected by Apple, (2) through the Custom App Distribution, if selected by Apple, (3) through Ad Hoc distribution in accordance with **Section 7.3**, and (4) for beta testing through TestFlight in accordance with **Section 7.4**. Applications for macOS may be submitted to Apple for selection and distribution on the App Store, or may be separately distributed.

7.1 Delivery of Free Licensed Applications via the App Store

If Your Application qualifies as a Licensed Application, it is eligible for delivery to end-users via the App Store by Apple and/or an Apple Subsidiary. If You would like Apple and/or an Apple Subsidiary to deliver Your Licensed Application or authorize additional content, functionality or services You make available in Your Licensed Application through the use of the In-App Purchase API to end-users for free (no charge) via the App Store, then You appoint Apple and Apple Subsidiaries as Your legal agent and/or commissionaire pursuant to the terms of Schedule 1 for Licensed Applications designated by You as free-of-charge applications.

7.2 Schedule 2 and Schedule 3 for Fee-Based Licensed Applications; Receipts

If Your Application qualifies as a Licensed Application and You intend to charge end-users a fee of any kind for Your Licensed Application or within Your Licensed Application through the use of the In-App Purchase API, You must enter into a separate agreement (Schedule 2) with Apple and/or an Apple Subsidiary before any such commercial distribution of Your Licensed Application

may take place via the App Store or before any such commercial delivery of additional content, functionality or services for which You charge end-users a fee may be authorized through the use of the In-App Purchase API in Your Licensed Application. If Your Application has been customized for use by specific third-party business customers, and You would like Apple to sign and distribute it through Apple's applicable Custom App Distribution, then You must enter into a separate agreement (Schedule 3) with Apple and/or an Apple Subsidiary before any such distribution may take place. To the extent that You enter (or have previously entered) into Schedule 2 or Schedule 3 with Apple and/or an Apple Subsidiary, the terms of Schedule 2 or 3 will be deemed incorporated into this Agreement by this reference.

When an end-user installs Your Licensed Application, Apple will provide You with a transaction receipt signed with an Apple Certificate. It is Your responsibility to verify that such certificate and receipt were issued by Apple, as set forth in the Documentation. You are solely responsible for Your decision to rely on any such certificates and receipts. YOUR USE OF OR RELIANCE ON SUCH CERTIFICATES AND RECEIPTS IN CONNECTION WITH A PURCHASE OF A LICENSED APPLICATION IS AT YOUR SOLE RISK. APPLE MAKES NO WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, ACCURACY, RELIABILITY, SECURITY, OR NON-INFRINGEMENT OF THIRD PARTY RIGHTS WITH RESPECT TO SUCH APPLE CERTIFICATES AND RECEIPTS. You agree that You will only use such receipts and certificates in accordance with the Documentation, and that You will not interfere or tamper with the normal operation of such digital certificates or receipts, including but not limited to any falsification or other misuse.

7.3 Distribution on Registered Devices (Ad Hoc Distribution)

Subject to the terms and conditions of this Agreement, You may also distribute Your Applications for iOS, watchOS and tvOS to individuals within Your company, organization, educational institution, group, or who are otherwise affiliated with You for use on a limited number of Registered Devices (as specified on the Program web portal), if Your Application has been digitally signed using Your Apple Certificate as described in this Agreement. By distributing Your Application in this manner on Registered Devices, You represent and warrant to Apple that Your Application complies with the Documentation and Program Requirements then in effect and You agree to cooperate with Apple and to answer questions and provide information about Your Application, as reasonably requested by Apple. You also agree to be solely responsible for determining which individuals within Your company, organization, educational institution or affiliated group should have access to and use of Your Applications and Registered Devices, and for managing such Registered Devices. Apple shall not be responsible for any costs, expenses, damages, losses (including without limitation lost business opportunities or lost profits) or other liabilities You may incur as a result of distributing Your Applications in this manner, or for Your failure to adequately manage, limit or otherwise control the access to and use of Your Applications and Registered Devices. You will be responsible for attaching or otherwise including, at Your discretion, any relevant usage terms with Your Applications. Apple will not be responsible for any violations of Your usage terms. You will be solely responsible for all user assistance, warranty and support of Your Applications.

7.4 TestFlight Distribution

A. Internal Distribution to Authorized Developers and App Store Connect users

You may use TestFlight for internal distribution of pre-release versions of Your Applications to a limited number of Your Authorized Developers or Your App Store Connect users who are members of Your company or organization, but solely for their internal use in testing, evaluating and/or developing Your Applications. Apple reserves the right to require You to cease distribution of such Applications to Your Authorized Developers or Your App Store Connect users through TestFlight, or to any particular Authorized Developer or App Store Connect user, at any time in its sole discretion.

B. External Distribution to Beta Testers

You may also use TestFlight for external distribution of pre-release versions of Your Applications to a limited number of Beta Testers (as specified in App Store Connect), but solely for their testing and evaluation of such pre-release versions of Your Applications and only if Your Application has been approved for such distribution by Apple as set forth in **Section 6.4 (TestFlight Submission)**. You may not charge Your Beta Testers fees of any kind to participate in Apple's TestFlight or for the use of any such pre-release versions. You may not use TestFlight for purposes that are not related to improving the quality, performance, or usability of pre-release versions of Your Application (e.g., continuous distribution of demo versions of Your Application in an attempt to circumvent the App Store or providing trial versions of Your Applications for purposes of soliciting favorable App Store ratings are prohibited uses). Further, if Your Application is primarily intended for children, You must verify that Your Beta Testers are of the age of majority in their jurisdiction. If You choose to add Beta Testers to TestFlight, then You are assuming responsibility for any invitations sent to such end-users and for obtaining their consent to contact them. By uploading email addresses for the purposes of sending invites to Beta Testers, You warrant that You have an appropriate legal basis for using such emails addresses for the purposes of sending invites. If a Beta Tester requests that You stop contacting them (either through TestFlight or otherwise), then You agree to promptly do so.

C. Use of TestFlight Information

To the extent that TestFlight provides You with beta analytics information about Your end-user's use of pre-release versions of Your Application (e.g., installation time, frequency of an individual's use of an App, etc.) and/or other related information, You agree to use such data solely for purposes of improving Your Applications and related products. You agree not to provide such information to any third parties, except for a Service Provider who is assisting You in processing and analyzing such data on Your behalf and who is not permitted to use it for any other purpose or disclose it to any other party (and then only to the limited extent not prohibited by Apple). For clarity, You must not aggregate (or permit any third-party to aggregate) beta analytics information provided to You by Apple for Your Applications as part of TestFlight with other developers' beta analytics information, or contribute such information to a repository for cross-developer beta analytics information. Further, You must not use any beta analytics information provided through TestFlight for purposes of de-anonymizing information obtained from or regarding a particular device or end-user outside of TestFlight (e.g., You may not attempt to connect data gathered through TestFlight for a particular end-user with information that is provided in an anonymized form through Apple's analytics service).

Libraries:**7.5 Distribution of Libraries**

You can develop Libraries using the Apple Software. Notwithstanding anything to the contrary in the Xcode and Apple SDKs Agreement, under this Agreement You may develop Libraries for iOS, watchOS, and tvOS using the applicable Apple SDKs that are provided as part of the Xcode and Apple SDKs license, provided that any such Libraries are developed and distributed solely for use with an iOS Product, Apple Watch, or Apple TV and that You limit use of such Libraries only to use with such products. If Apple determines that Your Library is not designed for use with an iOS Product, Apple Watch, or Apple TV, then Apple may require You to cease distribution of Your Library at any time, and You agree to promptly cease all distribution of such Library upon notice from Apple and cooperate with Apple to remove any remaining copies of such Library. For clarity, the foregoing limitation is not intended to prohibit the development of libraries for macOS.

7.6 No Other Distribution Authorized Under this Agreement

Except for the distribution of freely available Licensed Applications through the App Store or Custom App Distribution in accordance with **Sections 7.1 and 7.2**, the distribution of Applications for use on Registered Devices as set forth in **Section 7.2** (Ad Hoc Distribution), the distribution of Applications for beta testing through TestFlight as set forth in **Section 7.4**, the distribution of Libraries in accordance with **Section 7.5**, the distribution of Passes in accordance with

Attachment 5, the delivery of Safari Push Notifications on macOS, the distribution of Safari Extensions on macOS, the distribution of Applications and libraries for macOS, and/or as otherwise permitted herein, no other distribution of programs or applications developed using the Apple Software is authorized or permitted hereunder. In the absence of a separate agreement with Apple, You agree not to distribute Your Application for iOS Products, Apple Watch, or Apple TV to third parties via other distribution methods or to enable or permit others to do so. You agree to distribute Your Covered Products only in accordance with the terms of this Agreement.

8. Program Fees

As consideration for the rights and licenses granted to You under this Agreement and Your participation in the Program, You agree to pay Apple the annual Program fee set forth on the Program website, unless You have received a valid fee waiver from Apple. Such fee is non-refundable, and any taxes that may be levied on the Apple Software, Apple Services or Your use of the Program shall be Your responsibility. Your Program fees must be paid up and not in arrears at the time You submit (or resubmit) Applications to Apple under this Agreement, and Your continued use of the Program web portal and Services is subject to Your payment of such fees, where applicable. If You opt-in to have Your annual Program fees paid on an auto-renewing basis, then You agree that Apple may charge the credit card that You have on file with Apple for such fees, subject to the terms You agree to on the Program web portal when You choose to enroll in an auto-renewing membership.

9. Confidentiality

9.1 Information Deemed Apple Confidential

You agree that all pre-release versions of the Apple Software and Apple Services (including pre-release Documentation), pre-release versions of Apple hardware, the FPS Deployment Package, any terms and conditions contained herein that disclose pre-release features, and the terms and conditions of Schedule 2 and Schedule 3 will be deemed "Apple Confidential Information"; provided however that upon the commercial release of the Apple Software the terms and conditions that disclose pre-release features of the Apple Software or services will no longer be confidential. Notwithstanding the foregoing, Apple Confidential Information will not include: (i) information that is generally and legitimately available to the public through no fault or breach of Yours, (ii) information that is generally made available to the public by Apple, (iii) information that is independently developed by You without the use of any Apple Confidential Information, (iv) information that was rightfully obtained from a third party who had the right to transfer or disclose it to You without limitation, or (v) any FOSS included in the Apple Software and accompanied by licensing terms that do not impose confidentiality obligations on the use or disclosure of such FOSS. Further, Apple agrees that You will not be bound by the foregoing confidentiality terms with regard to technical information about pre-release Apple Software and services disclosed by Apple at WWDC (Apple's Worldwide Developers Conference), except that You may not post screen shots of, write public reviews of, or redistribute any pre-release Apple Software, Apple Services or hardware.

9.2 Obligations Regarding Apple Confidential Information

You agree to protect Apple Confidential Information using at least the same degree of care that You use to protect Your own confidential information of similar importance, but no less than a reasonable degree of care. You agree to use Apple Confidential Information solely for the purpose of exercising Your rights and performing Your obligations under this Agreement and agree not to use Apple Confidential Information for any other purpose, for Your own or any third party's benefit, without Apple's prior written consent. You further agree not to disclose or disseminate Apple Confidential Information to anyone other than: (i) those of Your employees and contractors, or those of Your faculty and staff if You are an educational institution, who have a need to know and who are bound by a written agreement that prohibits unauthorized use or disclosure of the Apple Confidential Information; or (ii) except as otherwise agreed or permitted in writing by Apple. You may disclose Apple Confidential Information to the extent required by law, provided that You take reasonable steps to notify Apple of such requirement before disclosing the

Apple Confidential Information and to obtain protective treatment of the Apple Confidential Information. You acknowledge that damages for improper disclosure of Apple Confidential Information may be irreparable; therefore, Apple is entitled to seek equitable relief, including injunction and preliminary injunction, in addition to all other remedies.

9.3 Information Submitted to Apple Not Deemed Confidential

Apple works with many application and software developers and some of their products may be similar to or compete with Your Applications. Apple may also be developing its own similar or competing applications and products or may decide to do so in the future. To avoid potential misunderstandings and except as otherwise expressly set forth herein, Apple cannot agree, and expressly disclaims, any confidentiality obligations or use restrictions, express or implied, with respect to any information that You may provide in connection with this Agreement or the Program, including but not limited to information about Your Application, Licensed Application Information, and metadata (such disclosures will be referred to as “**Licensee Disclosures**”). You agree that any such Licensee Disclosures will be **non-confidential**. Except as otherwise expressly set forth herein, Apple will be free to use and disclose any Licensee Disclosures on an unrestricted basis without notifying or compensating You. You release Apple from all liability and obligations that may arise from the receipt, review, use, or disclosure of any portion of any Licensee Disclosures. Any physical materials You submit to Apple will become Apple property and Apple will have no obligation to return those materials to You or to certify their destruction.

9.4 Press Releases and Other Publicity

You may not issue any press releases or make any other public statements regarding this Agreement, its terms and conditions, or the relationship of the parties without Apple’s express prior written approval, which may be withheld at Apple’s discretion.

10. Indemnification

To the extent permitted by applicable law, You agree to indemnify and hold harmless, and upon Apple’s request, defend, Apple, its directors, officers, employees, independent contractors and agents (each an “Apple Indemnified Party”) from any and all claims, losses, liabilities, damages, taxes, expenses and costs, including without limitation, attorneys’ fees and court costs (collectively, “Losses”), incurred by an Apple Indemnified Party and arising from or related to any of the following (but excluding for purposes of this Section, any Application for macOS that is distributed outside of the App Store and does not use any Apple Services or Certificates): (i) Your breach of any certification, covenant, obligation, representation or warranty in this Agreement, including Schedule 2 and Schedule 3 (if applicable); (ii) any claims that Your Covered Product or the distribution, sale, offer for sale, use or importation of Your Covered Product (whether alone or as an essential part of a combination), Licensed Application Information, metadata, or Pass Information violate or infringe any third party intellectual property or proprietary rights; (iii) Your breach of any of Your obligations under the EULA (as defined in Schedule 1 or Schedule 2 or Schedule 3 (if applicable)) for Your Licensed Application; (iv) Apple’s permitted use, promotion or delivery of Your Licensed Application, Licensed Application Information, Safari Push Notification, Safari Extension (if applicable), Pass, Pass Information, metadata, related trademarks and logos, or images and other materials that You provide to Apple under this Agreement, including Schedule 2 or Schedule 3 (if applicable); (v) any claims, including but not limited to any end-user claims, regarding Your Covered Products, Licensed Application Information, Pass Information, or related logos, trademarks, content or images; or (vi) Your use (including Your Authorized Developers’ use) of the Apple Software or services, Your Licensed Application Information, Pass Information, metadata, Your Authorized Test Units, Your Registered Devices, Your Covered Products, or Your development and distribution of any of the foregoing.

You acknowledge that neither the Apple Software nor any Services are intended for use in the development of Covered Products in which errors or inaccuracies in the content, functionality, services, data or information provided by any of the foregoing or the failure of any of the foregoing, could lead to death, personal injury, or severe physical or environmental damage, and,

to the extent permitted by law, You hereby agree to indemnify, defend and hold harmless each Apple Indemnified Party from any Losses incurred by such Apple Indemnified Party by reason of any such use.

In no event may You enter into any settlement or like agreement with a third party that affects Apple's rights or binds Apple in any way, without the prior written consent of Apple.

11. Term and Termination

11.1 Term

The Term of this Agreement shall extend until the one (1) year anniversary of the original activation date of Your Program account. Thereafter, subject to Your payment of annual renewal fees and compliance with the terms of this Agreement, the Term will automatically renew for successive one (1) year terms, unless sooner terminated in accordance with this Agreement.

11.2 Termination

This Agreement and all rights and licenses granted by Apple hereunder and any services provided hereunder will terminate, effective immediately upon notice from Apple:

- (a) if You or any of Your Authorized Developers fail to comply with any term of this Agreement other than those set forth below in this **Section 11.2** and fail to cure such breach within 30 days after becoming aware of or receiving notice of such breach;
- (b) if You or any of Your Authorized Developers fail to comply with the terms of **Section 9 (Confidentiality)**;
- (c) in the event of the circumstances described in the subsection entitled "Severability" below;
- (d) if You, at any time during the Term, commence an action for patent infringement against Apple;
- (e) if You become insolvent, fail to pay Your debts when due, dissolve or cease to do business, file for bankruptcy, or have filed against You a petition in bankruptcy; or
- (f) if You engage, or encourage others to engage, in any misleading, fraudulent, improper, unlawful or dishonest act relating to this Agreement, including, but not limited to, misrepresenting the nature of Your submitted Application (e.g., hiding or trying to hide functionality from Apple's review, falsifying consumer reviews for Your Application, engaging in payment fraud, etc.).

Apple may also terminate this Agreement, or suspend Your rights to use the Apple Software or services, if You fail to accept any new Program Requirements or Agreement terms as described in **Section 4**. Either party may terminate this Agreement for its convenience, for any reason or no reason, effective 30 days after providing the other party with written notice of its intent to terminate.

11.3 Effect of Termination

Upon the termination of this Agreement for any reason, You agree to immediately cease all use of the Apple Software and services and erase and destroy all copies, full or partial, of the Apple Software and any information pertaining to the services (including Your Push Application ID) and all copies of Apple Confidential Information in Your and Your Authorized Developers' possession or control. At Apple's request, You agree to provide written certification of such destruction to Apple. Upon the expiration of the Delivery Period defined and set forth in Schedule 1, all Licensed Applications and Licensed Application Information in Apple's possession or control shall be deleted or destroyed within a reasonable time thereafter, excluding any archival copies maintained in accordance with Apple's standard business practices or required to be maintained by applicable law, rule or regulation. The following provisions shall survive any termination of this Agreement: Sections 1, 2.3, 2.5, 2.6, 3.1(d), 3.1(e), 3.1(f), 3.2(d), 3.2(e), 3.2(f), 3.2(g), and 3.3, the second paragraph of Section 5.1 (excluding the last two sentences other than the restrictions, which shall survive), the third paragraph of Section 5.1, the last sentence of the first paragraph of Section 5.3 and the limitations and restrictions of Section 5.3, Section 5.4, the first sentence of and the restrictions of Section 6.5, the restrictions of Section 6.6, the second paragraph of Section 6.8, Section 7.1 (Schedule 1 for the Delivery Period), the restrictions of Section 7.3, 7.4,

and 7.5, Section 7.6, Section 9 through 14 inclusive; within Attachment 1, the last sentence of Section 1.1, Section 2, Section 3.2 (but only for existing promotions), the second and third sentences of Section 4, Section 5, and Section 6; within Attachment 2, Sections 1.3, 2, 3, 4, 5, 6, and 7; within Attachment 3, Sections 1, 2 (except the second sentence of Section 2.1), 3 and 4; within Attachment 4, Sections 1.2, 1.5, 1.6, 2, 3, and 4; within Attachment 5, Sections 2.2, 2.3, 2.4 (but only for existing promotions), 3.3, and 5; within Attachment 6, Sections 1.2, 1.3, 2, 3, and 4; and within Attachment 7, Section 1.1, and the last paragraph of Section 1.2 (but only for existing promotions). Apple will not be liable for compensation, indemnity, or damages of any sort as a result of terminating this Agreement in accordance with its terms, and termination of this Agreement will be without prejudice to any other right or remedy Apple may have, now or in the future.

12. NO WARRANTY

The Apple Software or Services may contain inaccuracies or errors that could cause failures or loss of data and it may be incomplete. Apple and its licensors reserve the right to change, suspend, remove, or disable access to any Services (or any part thereof) at any time without notice. In no event will Apple or its licensors be liable for the removal of or disabling of access to any such Services. Apple or its licensors may also impose limits on the use of or access to certain Services, or may remove the Services for indefinite time periods or cancel the Services at any time and in any case and without notice or liability. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF THE APPLE SOFTWARE, SECURITY SOLUTION, AND ANY SERVICES IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY AND EFFORT IS WITH YOU. THE APPLE SOFTWARE, SECURITY SOLUTION, AND ANY SERVICES ARE PROVIDED "AS IS" AND "AS AVAILABLE", WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND APPLE, APPLE'S AGENTS AND APPLE'S LICENSORS (**COLLECTIVELY REFERRED TO AS "APPLE" FOR THE PURPOSES OF SECTIONS 12 AND 13**) HEREBY DISCLAIM ALL WARRANTIES AND CONDITIONS WITH RESPECT TO THE APPLE SOFTWARE, SECURITY SOLUTION, AND SERVICES, EITHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, TIMELINESS, AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS. APPLE DOES NOT WARRANT AGAINST INTERFERENCE WITH YOUR ENJOYMENT OF THE APPLE SOFTWARE, SECURITY SOLUTION, OR SERVICES, THAT THE APPLE SOFTWARE, SECURITY SOLUTION, OR SERVICES WILL MEET YOUR REQUIREMENTS, THAT THE OPERATION OF THE APPLE SOFTWARE, SECURITY SOLUTION, OR THE PROVISION OF SERVICES WILL BE UNINTERRUPTED, TIMELY, SECURE OR ERROR-FREE, THAT DEFECTS OR ERRORS IN THE APPLE SOFTWARE, SECURITY SOLUTION, OR SERVICES WILL BE CORRECTED, OR THAT THE APPLE SOFTWARE, SECURITY SOLUTION, OR SERVICES WILL BE COMPATIBLE WITH FUTURE APPLE PRODUCTS, SERVICES OR SOFTWARE OR ANY THIRD PARTY SOFTWARE, APPLICATIONS, OR SERVICES, OR THAT ANY INFORMATION STORED OR TRANSMITTED THROUGH ANY APPLE SOFTWARE OR SERVICES WILL NOT BE LOST, CORRUPTED OR DAMAGED. YOU ACKNOWLEDGE THAT THE APPLE SOFTWARE AND SERVICES ARE NOT INTENDED OR SUITABLE FOR USE IN SITUATIONS OR ENVIRONMENTS WHERE ERRORS, DELAYS, FAILURES OR INACCURACIES IN THE TRANSMISSION OR STORAGE OF DATA OR INFORMATION BY OR THROUGH THE APPLE SOFTWARE OR SERVICES COULD LEAD TO DEATH, PERSONAL INJURY, OR FINANCIAL, PHYSICAL, PROPERTY OR ENVIRONMENTAL DAMAGE, INCLUDING WITHOUT LIMITATION THE OPERATION OF NUCLEAR FACILITIES, AIRCRAFT NAVIGATION OR COMMUNICATION SYSTEMS, AIR TRAFFIC CONTROL, LIFE SUPPORT OR WEAPONS SYSTEMS. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY APPLE OR AN APPLE AUTHORIZED REPRESENTATIVE WILL CREATE A WARRANTY NOT EXPRESSLY STATED IN THIS AGREEMENT. SHOULD THE APPLE SOFTWARE, SECURITY SOLUTION, OR SERVICES PROVE DEFECTIVE, YOU ASSUME THE ENTIRE COST OF ALL

NECESSARY SERVICING, REPAIR OR CORRECTION. Location data as well as any maps data provided by any Services or software is for basic navigational purposes only and is not intended to be relied upon in situations where precise location information is needed or where erroneous, inaccurate or incomplete location data may lead to death, personal injury, property or environmental damage. Neither Apple nor any of its licensors guarantees the availability, accuracy, completeness, reliability, or timeliness of location data or any other data or information displayed by any Services or software.

13. LIMITATION OF LIABILITY

TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW, IN NO EVENT WILL APPLE BE LIABLE FOR PERSONAL INJURY, OR ANY INCIDENTAL, SPECIAL, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES WHATSOEVER, INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, LOSS OF DATA, BUSINESS INTERRUPTION OR ANY OTHER COMMERCIAL DAMAGES OR LOSSES, ARISING OUT OF OR RELATED TO THIS AGREEMENT, YOUR USE OR INABILITY TO USE THE APPLE SOFTWARE, SECURITY SOLUTION, SERVICES, APPLE CERTIFICATES, OR YOUR DEVELOPMENT EFFORTS OR PARTICIPATION IN THE PROGRAM, HOWEVER CAUSED, WHETHER UNDER A THEORY OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), PRODUCTS LIABILITY, OR OTHERWISE, EVEN IF APPLE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND NOTWITHSTANDING THE FAILURE OF ESSENTIAL PURPOSE OF ANY REMEDY. In no event shall Apple's total liability to You under this Agreement for all damages (other than as may be required by applicable law in cases involving personal injury) exceed the amount of fifty dollars (\$50.00).

14. General Legal Terms

14.1 Third Party Notices

Portions of the Apple Software or Services may utilize or include third party software and other copyrighted material. Acknowledgements, licensing terms and disclaimers for such material are contained in the electronic documentation for the Apple Software and Services, and Your use of such material is governed by their respective terms.

14.2 Consent to Collection and Use of Data

A. Pre-Release Versions of iOS, watchOS, tvOS, and macOS

In order to provide, test and help Apple, its partners, and third party developers improve their products and services, and unless You or Your Authorized Developers opt out in the pre-release versions of iOS, watchOS, tvOS, or macOS, as applicable, You acknowledge that Apple and its subsidiaries and agents will be collecting, using, storing, transmitting, processing and analyzing (collectively, "**Collecting**") diagnostic, technical, and usage logs and information from Your Authorized Test Units (that are running pre-release versions of the Apple Software and services) as part of the developer seeding process. This information will be Collected in a form that does not personally identify You or Your Authorized Developers and may be Collected from Your Authorized Test Units at any time, including when You or Your Authorized Developers sync to iTunes or automatically over a secure over-the-air connection. The information that would be Collected includes, but is not limited to, general diagnostic and usage data, various unique device identifiers, various unique system or hardware identifiers, details about hardware and operating system specifications, performance statistics, and data about how You use Your Authorized Test Unit, system and application software, and peripherals, and, if Location Services is enabled, certain location information. You agree that Apple may share such diagnostic, technical, and usage logs and information with partners and third-party developers for purposes of allowing them to improve their products and services that operate on or in connection with Apple-branded products. **By installing or using pre-release versions of iOS, watchOS, tvOS, or macOS on Your Authorized Test Units, You acknowledge and agree that Apple and its subsidiaries and agents have Your permission to Collect all such information and use it as set forth above in this Section.**

B. Other Pre-Release Apple Software and Services

In order to test, provide and improve Apple's products and services, and only if You choose to install or use other pre-release Apple Software or Services provided as part of the developer seeding process or Program, You acknowledge that Apple and its subsidiaries and agents may be Collecting diagnostic, technical, usage and related information from other pre-release Apple Software and Services. Apple will notify You about the Collection of such information on the Program web portal, and You should carefully review the Release Notes and other information disclosed by Apple in such location prior to choosing whether or not to install or use any such pre-release Apple Software or Services. **By installing or using such pre-release Apple Software and Services, You acknowledge and agree that Apple and its subsidiaries and agents have Your permission to Collect any and all such information and use it as set forth above.**

C. Device Deployment Services

In order to set up and use the device provisioning, account authentication, and deployment features of the Apple Software and Services, certain unique identifiers for Your computer, iOS devices, watchOS devices, tvOS devices, and account information may be needed. These unique identifiers may include Your email address, Your Apple ID, a hardware identifier for Your computer, and device identifiers entered by You into the Apple Software or Services for Apple-branded products running iOS, watchOS, or tvOS. Such identifiers may be logged in association with Your interaction with the Service and Your use of these features and the Apple Software and Services. **By using these features, You agree that Apple and its subsidiaries and agents may Collect this information for the purpose of providing the Apple Software and Services, including using such identifiers for account verification and anti-fraud measures.** If You do not want to provide this information, do not use the provisioning, deployment or authentication features of the Apple Software or Services.

D. Apple Services

In order to test, provide and improve Apple's products and services, and only if You choose to use the Services provided hereunder (and except as otherwise provided herein), You acknowledge that Apple and its subsidiaries and agents may be Collecting diagnostic, technical, usage and related information from the Apple Services. Some of this information will be Collected in a form that does not personally identify You. However, in some cases, Apple may need to Collect information that would personally identify You, but only if Apple has a good faith belief that such Collection is reasonably necessary to: (a) provide the Apple Services; (b) comply with legal process or request; (c) verify compliance with the terms of this Agreement; (d) prevent fraud, including investigating any potential technical issues or violations; or (e) protect the rights, property, security or safety of Apple, its developers, customers or the public as required or permitted by law. **By installing or using such Apple Services, You acknowledge and agree that Apple and its subsidiaries and agents have Your permission to Collect any and all such information and use it as set forth in this Section.** Further, You agree that Apple may share the diagnostic, technical, and usage logs and information (excluding personally identifiable information) with partners and third-party developers for purposes of allowing them to improve their products and services that operate on or in connection with Apple-branded products.

E. Privacy Policy

Data collected pursuant to this **Section 14.2** will be treated in accordance with Apple's Privacy Policy which can be viewed at <http://www.apple.com/legal/privacy>.

14.3 Assignment; Relationship of the Parties

This Agreement may not be assigned, nor may any of Your obligations under this Agreement be delegated, in whole or in part, by You by operation of law, merger, or any other means without Apple's express prior written consent and any attempted assignment without such consent will be null and void. To submit a request for Apple's consent to assignment, please email: devprograms@apple.com. Except for the agency appointment as specifically set forth in Schedule 1 (if applicable), this Agreement will not be construed as creating any other agency relationship, or a partnership, joint venture, fiduciary duty, or any other form of legal association

between You and Apple, and You will not represent to the contrary, whether expressly, by implication, appearance or otherwise. This Agreement is not for the benefit of any third parties.

14.4 Independent Development

Nothing in this Agreement will impair Apple's right to develop, acquire, license, market, promote, or distribute products or technologies that perform the same or similar functions as, or otherwise compete with, Licensed Applications, Covered Products, or any other products or technologies that You may develop, produce, market, or distribute.

14.5 Notices

Any notices relating to this Agreement shall be in writing. Notices will be deemed given by Apple when sent to You at the email address or mailing address You provided during the sign-up process. All notices to Apple relating to this Agreement will be deemed given (a) when delivered personally, (b) three business days after having been sent by commercial overnight carrier with written proof of delivery, and (c) five business days after having been sent by first class or certified mail, postage prepaid, to this Apple address: Apple Developer Program Licensing, Apple Inc., App Store Legal, One Apple Park Way, 169-4ISM, Cupertino, California, 95014 U.S.A. You consent to receive notices by email and agree that any such notices that Apple sends You electronically will satisfy any legal communication requirements. A party may change its email or mailing address by giving the other written notice as described above.

14.6 Severability

If a court of competent jurisdiction finds any clause of this Agreement to be unenforceable for any reason, that clause of this Agreement shall be enforced to the maximum extent permissible so as to effect the intent of the parties, and the remainder of this Agreement shall continue in full force and effect. However, if applicable law prohibits or restricts You from fully and specifically complying with, or appointing Apple and Apple Subsidiaries as Your agent under Schedule 1 or the Sections of this Agreement entitled "Internal Use License and Restrictions", "Your Obligations" or "Apple Certificates; Revocation", or prevents the enforceability of any of those Sections or Schedule 1, this Agreement will immediately terminate and You must immediately discontinue any use of the Apple Software as described in the Section entitled "Term and Termination."

14.7 Waiver and Construction

Failure by Apple to enforce any provision of this Agreement shall not be deemed a waiver of future enforcement of that or any other provision. Any laws or regulations that provide that the language of a contract will be construed against the drafter will not apply to this Agreement. Section headings are for convenience only and are not to be considered in construing or interpreting this Agreement.

14.8 Export Control

You may not use, export, re-export, import, sell or transfer the Apple Software except as authorized by United States law, the laws of the jurisdiction in which You obtained the Apple Software, and any other applicable laws and regulations. In particular, but without limitation, the Apple Software may not be exported or re-exported (a) into any U.S. embargoed countries or (b) to anyone on the U.S. Treasury Department's list of Specially Designated Nationals or the U.S. Department of Commerce's Denied Persons List or Entity List or any other restricted party lists. By using the Apple Software, You represent and warrant that You are not located in any such country or on any such list. You also agree that You will not use the Apple Software for any purposes prohibited by United States law, including, without limitation, the development, design, manufacture or production of nuclear, missile, chemical or biological weapons. You certify that pre-release versions of the Apple Software will only be used for development and testing purposes, and will not be rented, sold, leased, sublicensed, assigned, or otherwise transferred. Further, You certify that You will not transfer or export any product, process or service that is a direct product of such pre-release Apple Software.

14.9 Government End-users

The Apple Software and Documentation are “Commercial Items”, as that term is defined at 48 C.F.R. §2.101, consisting of “Commercial Computer Software” and “Commercial Computer Software Documentation”, as such terms are used in 48 C.F.R. §12.212 or 48 C.F.R. §227.7202, as applicable. Consistent with 48 C.F.R. §12.212 or 48 C.F.R. §227.7202-1 through 227.7202-4, as applicable, the Commercial Computer Software and Commercial Computer Software Documentation are being licensed to U.S. Government end-users (a) only as Commercial Items and (b) with only those rights as are granted to all other end-users pursuant to the terms and conditions herein. Unpublished-rights reserved under the copyright laws of the United States.

14.10 Dispute Resolution; Governing Law

Any litigation or other dispute resolution between You and Apple arising out of or relating to this Agreement, the Apple Software, or Your relationship with Apple will take place in the Northern District of California, and You and Apple hereby consent to the personal jurisdiction of and exclusive venue in the state and federal courts within that District with respect any such litigation or dispute resolution. This Agreement will be governed by and construed in accordance with the laws of the United States and the State of California, except that body of California law concerning conflicts of law. Notwithstanding the foregoing:

- (a) If You are an agency, instrumentality or department of the federal government of the United States, then this Agreement shall be governed in accordance with the laws of the United States of America, and in the absence of applicable federal law, the laws of the State of California will apply. Further, and notwithstanding anything to the contrary in this Agreement (including but not limited to **Section 10 (Indemnification)**), all claims, demands, complaints and disputes will be subject to the Contract Disputes Act (41 U.S.C. §§601-613), the Tucker Act (28 U.S.C. § 1346(a) and § 1491), or the Federal Tort Claims Act (28 U.S.C. §§ 1346(b), 2401-2402, 2671-2672, 2674-2680), as applicable, or other applicable governing authority. For the avoidance of doubt, if You are an agency, instrumentality, or department of the federal, state or local government of the U.S. or a U.S. public and accredited educational institution, then Your indemnification obligations are only applicable to the extent they would not cause You to violate any applicable law (e.g., the Anti-Deficiency Act), and You have any legally required authorization or authorizing statute;
- (b) If You (as an entity entering into this Agreement) are a U.S. public and accredited educational institution or an agency, instrumentality, or department of a state or local government within the United States, then (a) this Agreement will be governed and construed in accordance with the laws of the state (within the U.S.) in which Your entity is domiciled, except that body of state law concerning conflicts of law; and (b) any litigation or other dispute resolution between You and Apple arising out of or relating to this Agreement, the Apple Software, or Your relationship with Apple will take place in federal court within the Northern District of California, and You and Apple hereby consent to the personal jurisdiction of and exclusive venue of such District unless such consent is expressly prohibited by the laws of the state in which Your entity is domiciled; and
- (c) If You are an international, intergovernmental organization that has been conferred immunity from the jurisdiction of national courts through Your intergovernmental charter or agreement, then any controversy or claim arising out of or relating to this Agreement, or the breach thereof, shall be determined by arbitration administered by the International Centre for Dispute Resolution in accordance with its International Arbitration Rules. The place of arbitration shall be London, England; the language shall be English; and the number of arbitrators shall be three. Upon Apple's request, You agree to provide evidence of Your status as an intergovernmental organization with such privileges and immunities.

This Agreement shall not be governed by the United Nations Convention on Contracts for the International Sale of Goods, the application of which is expressly excluded.

14.11 Entire Agreement; Governing Language

This Agreement constitutes the entire agreement between the parties with respect to the use of the Apple Software, Apple Services and Apple Certificates licensed hereunder and, except as otherwise set forth herein, supersedes all prior understandings and agreements regarding its

subject matter. Notwithstanding the foregoing, to the extent that You are provided with pre-release materials under the Program and such pre-release materials are subject to a separate license agreement, You agree that the license agreement accompanying such materials in addition to **Section 9 (Confidentiality)** of this Agreement shall also govern Your use of such materials. If You have entered or later enter into the Xcode and Apple SDKs Agreement, this Apple Developer Program License Agreement will govern in the event of any inconsistencies between the two with respect to the same subject matter; provided, however, that this Apple Developer Program License Agreement is not intended to prevent You from exercising any rights granted to You in the Xcode and Apple SDKs Agreement in accordance with the terms and conditions set forth therein. This Agreement may be modified only: (a) by a written amendment signed by both parties, or (b) to the extent expressly permitted by this Agreement (for example, by Apple by written or email notice to You). Any translation is provided as a courtesy to You, and in the event of a dispute between the English and any non-English version, the English version of this Agreement shall govern, to the extent not prohibited by local law in Your jurisdiction. If You are located in the province of Quebec, Canada or are a government organization within France, then the following clause applies to You: The parties hereby confirm that they have requested that this Agreement and all related documents be drafted in English. *Les parties ont exigé que le présent contrat et tous les documents connexes soient rédigés en anglais.*

Attachment 1
(to the Agreement)

Additional Terms for Apple Push Notification Service and Local Notifications

The following terms are in addition to the terms of the Agreement and apply to any use of the APN (Apple Push Notification Service):

1. Use of the APN and Local Notifications

1.1 You may use the APN only in Your Applications, Your Passes, and/or in sending Safari Push Notifications to the macOS desktop of users of Your Site who have opted in to receive Notifications through Safari on macOS. You, Your Application and/or Your Pass may access the APN only via the APN API and only if You have been assigned a Push Application ID by Apple. Except for a Service Provider who is assisting You with using the APN, You agree not to share Your Push Application ID with any third party. You understand that You will not be permitted to access or use the APN after expiration or termination of Your Agreement.

1.2 You are permitted to use the APN and the APN APIs only for the purpose of sending Push Notifications to Your Application, Your Pass, and/or to the macOS desktop of users of Your Site who have opted in to receive Notifications through Safari on macOS as expressly permitted by the Agreement, the APN Documentation and all applicable laws and regulations (including all intellectual property laws). You further agree that You must disclose to Apple any use of the APN as part of the submission process for Your Application.

1.3 You understand that before You send an end-user any Push Notifications through the APN, the end-user must consent to receive such Notifications. You agree not to disable, override or otherwise interfere with any Apple-implemented consent panels or any Apple system preferences for enabling or disabling Notification functionality. If the end-user's consent to receive Push Notifications is denied or later withdrawn, You may not send the end-user Push Notifications.

2. Additional Requirements

2.1 You may not use the APN or Local Notifications for the purpose of sending unsolicited messages to end-users or for the purpose of phishing or spamming, including, but not limited to, engaging in any types of activities that violate anti-spamming laws and regulations, or that are otherwise improper, inappropriate or illegal. The APN and Local Notifications should be used for sending relevant messages to a user that provide a benefit (e.g., a response to an end-user request for information, provision of pertinent information relevant to the Application).

2.2 You may not use the APN or Local Notifications for the purposes of advertising, product promotion, or direct marketing of any kind (e.g., up-selling, cross-selling, etc.), including, but not limited to, sending any messages to promote the use of Your Application or advertise the availability of new features or versions. Notwithstanding the foregoing, You may use the APN or Local Notifications for promotional purposes in connection with Your Pass so long as such use is directly related to the Pass, e.g., a store coupon may be sent to Your Pass in Wallet.

2.3 You may not excessively use the overall network capacity or bandwidth of the APN, or unduly burden an iOS Product, Apple Watch, macOS or an end-user with excessive Push Notifications or Local Notifications, as may be determined by Apple in its reasonable discretion. In addition, You agree not to harm or interfere with Apple's networks or servers, or any third party servers or networks connected to the APN, or otherwise disrupt other developers' use of the APN.

2.4 You may not use the APN or Local Notifications to send material that contains any obscene, pornographic, offensive or defamatory content or materials of any kind (text, graphics, images, photographs, sounds, etc.), or other content or materials that in Apple's reasonable judgment may be found objectionable by the end-user of Your Application, Pass or Site.

2.5 You may not transmit, store or otherwise make available any material that contains viruses or any other computer code, files or programs that may harm, disrupt or limit the normal operation of the APN or an iOS Product, Apple Watch, or macOS, and You agree not to disable, spoof, hack or otherwise interfere with any security, digital signing, verification or authentication mechanisms that are incorporated in or used by the APN, or enable others to do so.

3. Additional Terms for Website Push IDs

3.1 Subject to the terms of this Agreement, You understand and agree that Safari Push Notifications that You send using Your Website Push ID must be sent under Your own name, trademark or brand (e.g., a user should know that the communication is coming from Your Site) and must include an icon, trademark, logo or other identifying mark for Your Site. You agree not to misrepresent or impersonate another Site or entity or otherwise mislead users about the originator of the Safari Push Notification. To the extent that You reference a third party's trademark or brand within Your Safari Push Notification, You represent and warrant that You have any necessary rights.

3.2 By enabling the APN and sending Safari Push Notifications for Your Site as permitted in this Agreement, You hereby permit Apple to use (i) screen shots of Your Safari Push Notifications on macOS; and (ii) trademarks and logos associated with such Notifications, for promotional purposes in Apple's marketing materials, excluding those portions which You do not have the right to use for promotional purposes and which You identify in writing to Apple. You also permit Apple to use images and other materials that You may provide to Apple, at Apple's reasonable request, for promotional purposes in marketing materials.

4. Delivery by the APN or via Local Notifications. You understand and agree that in order to provide the APN and make Your Push Notifications available on iOS Products, Apple Watch, or macOS, Apple may transmit Your Push Notifications across various public networks, in various media, and modify or change Your Push Notifications to comply with the technical and other requirements for connecting to networks or devices. You acknowledge and agree that the APN is not, and is not intended to be, a guaranteed or secure delivery service, and You shall not use or rely upon it as such. Further, as a condition to using the APN or delivering Local Notifications, You agree not to transmit sensitive personal or confidential information belonging to an individual (e.g., a social security number, financial account or transactional information, or any information where the individual may have a reasonable expectation of secure transmission) as part of any such Notification, and You agree to comply with any applicable notice or consent requirements with respect to any collection, transmission, maintenance, processing or use of an end-user's personal information.

5. Your Acknowledgements. You acknowledge and agree that:

5.1 Apple may at any time, and from time to time, with or without prior notice to You (a) modify the APN, including changing or removing any feature or functionality, or (b) modify, deprecate, reissue or republish the APN APIs. You understand that any such modifications may require You to change or update Your Applications, Passes or Sites at Your own cost. Apple has no express or implied obligation to provide, or continue to provide, the APN and may suspend or discontinue all or any portion of the APN at any time. Apple shall not be liable for any losses, damages or costs of any kind incurred by You or any other party arising out of or related to any such service suspension or discontinuation or any such modification of the APN or APN APIs.

5.2 The APN is not available in all languages or in all countries and Apple makes no representation that the APN is appropriate or available for use in any particular location. To the extent You choose to access and use the APN, You do so at Your own initiative and are responsible for compliance with any applicable laws, including but not limited to any local laws.

5.3 Apple provides the APN to You for Your use with Your Application, Pass, or Site, and does not provide the APN directly to any end-user. You acknowledge and agree that any Push Notifications are sent by You, not Apple, to the end-user of Your Application, Pass or Site, and You are solely liable and responsible for any data or content transmitted therein and for any such use of the APN. Further, You acknowledge and agree that any Local Notifications are sent by You, not Apple, to the end-user of Your Application, and You are solely liable and responsible for any data or content transmitted therein.

5.4 Apple makes no guarantees to You in relation to the availability or uptime of the APN and is not obligated to provide any maintenance, technical or other support for the APN.

5.5 Apple reserves the right to remove Your access to the APN, limit Your use of the APN, or revoke Your Push Application ID at any time in its sole discretion.

5.6 Apple may monitor and collect information (including but not limited to technical and diagnostic information) about Your usage of the APN to aid Apple in improving the APN and other Apple products or services and to verify Your compliance with this Agreement; provided however that Apple will not access or disclose the content of any Push Notification unless Apple has a good faith belief that such access or disclosure is reasonably necessary to: (a) comply with legal process or request; (b) enforce the terms of this Agreement, including investigation of any potential violation hereof; (c) detect, prevent or otherwise address security, fraud or technical issues; or (d) protect the rights, property or safety of Apple, its developers, customers or the public as required or permitted by law.

6. Additional Liability Disclaimer. APPLE SHALL NOT BE LIABLE FOR ANY DAMAGES OR LOSSES ARISING FROM ANY USE OF THE APN, INCLUDING ANY INTERRUPTIONS TO THE APN OR ANY USE OF NOTIFICATIONS, INCLUDING, BUT NOT LIMITED TO, ANY POWER OUTAGES, SYSTEM FAILURES, NETWORK ATTACKS, SCHEDULED OR UNSCHEDULED MAINTENANCE, OR OTHER INTERRUPTIONS.

Attachment 2
(to the Agreement)
Additional Terms for Use of the In-App Purchase API

The following terms are in addition to the terms of the Agreement and apply to any use of the In-App Purchase API in Your Application:

1. Use of the In-App Purchase API

1.1 You may use the In-App Purchase API only to enable end-users to access or receive content, functionality, or services that You make available for use within Your Application (e.g., digital books, additional game levels, access to a turn-by-turn map service). You may not use the In-App Purchase API to offer goods or services to be used outside of Your Application.

1.2 You must submit to Apple for review and approval all content, functionality, or services that You plan to provide through the use of the In-App Purchase API in accordance with these terms and the processes set forth in **Section 6 (Application Submission and Selection)** of the Agreement. For all submissions, You must provide the name, text description, price, unique identifier number, and other information that Apple reasonably requests (collectively, the **"Submission Description"**). Apple reserves the right to review the actual content, functionality or service that has been described in the Submission Descriptions at any time, including, but not limited to, in the submission process and after approval of the Submission Description by Apple. If You would like to provide additional content, functionality or services through the In-App Purchase API that are not described in Your Submission Description, then You must first submit a new or updated Submission Description for review and approval by Apple prior to making such items available through the use of the In-App Purchase API. Apple reserves the right to withdraw its approval of content, functionality, or services previously approved, and You agree to stop making any such content, functionality, or services available for use within Your Application.

1.3 All content, functionality, and services offered through the In-App Purchase API are subject to the Program Requirements for Applications, and after such content, services or functionality are added to a Licensed Application, they will be deemed part of the Licensed Application and will be subject to all the same obligations and requirements. For clarity, Applications that provide keyboard extension functionality may not use the In-App Purchase API within the keyboard extension itself; however, they may continue to use the In-App Purchase API in separate areas of the Application.

2. Additional Restrictions

2.1 You may not use the In-App Purchase API to enable an end-user to set up a pre-paid account to be used for subsequent purchases of content, functionality, or services, or otherwise create balances or credits that end-users can redeem or use to make purchases at a later time.

2.2 You may not enable end-users to purchase Currency of any kind through the In-App Purchase API, including but not limited to any Currency for exchange, gifting, redemption, transfer, trading or use in purchasing or obtaining anything within or outside of Your Application. "Currency" means any form of currency, points, credits, resources, content or other items or units recognized by a group of individuals or entities as representing a particular value and that can be transferred or circulated as a medium of exchange.

2.3 Content and services may be offered through the In-App Purchase API on a subscription basis (e.g., subscriptions to newspapers and magazines). Rentals of content, services or functionality through the In-App Purchase API are not allowed (e.g., use of particular content may not be restricted to a pre-determined, limited period of time).

2.4 You may not use the In-App Purchase API to send any software updates to Your Application or otherwise add any additional executable code to Your Application. An In-App Purchase item must either already exist in Your Application waiting to be unlocked, be streamed to Your Application after the In-App Purchase API transaction has been completed, or be downloaded to Your Application solely as data after such transaction has been completed.

2.5 You may not use the In-App Purchase API to deliver any items that contain content or materials of any kind (text, graphics, images, photographs, sounds, etc.) that in Apple's reasonable judgment may be found objectionable or inappropriate, for example, materials that may be considered obscene, pornographic, or defamatory.

2.6 With the exception of items of content that an end-user consumes or uses up within Your Application (e.g., virtual supplies such as construction materials) (a "Consumable"), any other content, functionality, services or subscriptions delivered through the use of the In-App Purchase API (e.g., a sword for a game) (a "Non-Consumable") must be made available to end-users in accordance with the same usage rules as Licensed Applications (e.g., any such content, services or functionality must be available to all of the devices associated with an end-user's account). You will be responsible for identifying Consumable items to Apple and for disclosing to end-users that Consumables will not be available for use on other devices.

3. Your Responsibilities

3.1 For each successfully completed transaction made using the In-App Purchase API, Apple will provide You with a transaction receipt. It is Your responsibility to verify the validity of such receipt prior to the delivery of any content, functionality, or services to an end-user and Apple will not be liable for Your failure to verify that any such transaction receipt came from Apple.

3.2 Unless Apple provides You with user interface elements, You are responsible for developing the user interface Your Application will display to end-users for orders made through the In-App Purchase API. You agree not to misrepresent, falsely claim, mislead or engage in any unfair or deceptive acts or practices regarding the promotion and sale of items through Your use of the In-App Purchase API, including, but not limited to, in the Licensed Application Information and any metadata that You submit through App Store Connect. You agree to comply with all applicable laws and regulations, including those in any jurisdictions in which You make content, functionality, services or subscriptions available through the use of the In-App Purchase API, including but not limited to consumer laws and export regulations.

3.3 Apple may provide hosting services for Non-Consumables that You would like to provide to Your end-users through the use of the In-App Purchase API. Even if Apple hosts such Non-Consumables on Your behalf, You are responsible for providing items ordered through the In-App Purchase API in a timely manner (i.e., promptly after Apple issues the transaction receipt, except in cases where You have disclosed to Your end-user that the item will be made available at a later time) and for complying with all applicable laws in connection therewith, including but not limited to, laws, rules and regulations related to cancellation or delivery of ordered items. You are responsible for maintaining Your own records for all such transactions.

3.4 You will not issue any refunds to end-users of Your Application, and You agree that Apple may issue refunds to end-users in accordance with the terms of Schedule 2.

4. Apple Services

4.1 From time to time, Apple may choose to offer additional services and functionality relating to In-App Purchase API transactions. Apple makes no guarantees that the In-App Purchase API or any Services will continue to be made available to You or that they will meet Your requirements, be uninterrupted, timely, secure or free from error, that any information that You

obtain from the In-App Purchase API or any Services will be accurate or reliable or that any defects will be corrected.

4.2 You understand that You will not be permitted to access or use the In-App Purchase API after expiration or termination of Your Agreement.

5. Your Acknowledgements. You acknowledge and agree that: Apple may at any time, and from time to time, with or without prior notice to You (a) modify the In-App Purchase API, including changing or removing any feature or functionality, or (b) modify, deprecate, reissue or republish the In-App Purchase API. You understand that any such modifications may require You to change or update Your Applications at Your own cost in order to continue to use the In-App Purchase API. Apple has no express or implied obligation to provide, or continue to provide, the In-App Purchase API or any services related thereto and may suspend or discontinue all or any portion of thereof at any time. Apple shall not be liable for any losses, damages or costs of any kind incurred by You or any other party arising out of or related to any suspension, discontinuation or modification of the In-App Purchase API or any services related thereto. Apple makes no guarantees to You in relation to the availability or uptime of the In-App Purchase API or any other services that Apple may provide to You in connection therewith, and Apple is not obligated to provide any maintenance, technical or other support related thereto. Apple provides the In-App Purchase API to You for Your use with Your Application, and may provide services to You in connection therewith (e.g., hosting services for Non-Consumable items). Apple is not responsible for providing or unlocking any content, functionality, services or subscriptions that an end-user orders through Your use of the In-App Purchase API. You acknowledge and agree that any such items are made available by You, not Apple, to the end-user of Your Application, and You are solely liable and responsible for such items ordered through the use of the In-App Purchase API and for any such use of the In-App Purchase API in Your Application or for any use of services in connection therewith.

6. Use of Digital Certificates for In-App Purchase. When an end-user completes a transaction using the In-App Purchase API in Your Application, Apple will provide You with a transaction receipt signed with an Apple Certificate. It is Your responsibility to verify that such certificate and receipt were issued by Apple, as set forth in the Documentation. You are solely responsible for Your decision to rely on any such certificates and receipts. YOUR USE OF OR RELIANCE ON SUCH CERTIFICATES AND RECEIPTS IN CONNECTION WITH THE IN-APP PURCHASE API IS AT YOUR SOLE RISK. APPLE MAKES NO WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, ACCURACY, RELIABILITY, SECURITY, OR NON-INFRINGEMENT OF THIRD PARTY RIGHTS WITH RESPECT TO SUCH APPLE CERTIFICATES AND RECEIPTS. You agree that You will only use such receipts and certificates in accordance with the Documentation, and that You will not interfere or tamper with the normal operation of such digital certificates or receipts, including but not limited to any falsification or other misuse.

7. Additional Liability Disclaimer. APPLE SHALL NOT BE LIABLE FOR ANY DAMAGES OR LOSSES ARISING FROM THE USE OF THE IN-APP PURCHASE API AND ANY SERVICES, INCLUDING, BUT NOT LIMITED TO, (I) ANY LOSS OF PROFIT (WHETHER INCURRED DIRECTLY OR INDIRECTLY), ANY LOSS OF GOODWILL OR BUSINESS REPUTATION, ANY LOSS OF DATA SUFFERED, OR OTHER INTANGIBLE LOSS, (II) ANY CHANGES WHICH APPLE MAY MAKE TO THE IN-APP PURCHASE API OR ANY SERVICES, OR FOR ANY PERMANENT OR TEMPORARY CESSATION IN THE PROVISION OF THE IN-APP PURCHASE API OR ANY SERVICES (OR ANY FEATURES WITHIN THE SERVICES) PROVIDED THEREWITH, OR (III) THE DELETION OF, CORRUPTION OF, OR FAILURE TO PROVIDE ANY DATA TRANSMITTED BY OR THROUGH YOUR USE OF THE IN-APP PURCHASE API OR SERVICES. It is Your responsibility to maintain appropriate alternate backup of all Your information and data, including but not limited to any Non-Consumables that You may provide to Apple for hosting services.

Attachment 3
(to the Agreement)
Additional Terms for the Game Center

The following terms are in addition to the terms of the Agreement and apply to any use of the Game Center service by You or Your Application.

1. Use of the Game Center service

1.1 You and Your Application may not connect to or use the Game Center service in any way not expressly authorized by Apple. You agree to only use the Game Center service in accordance with this Agreement (including this Attachment 3), the Game Center Documentation and in accordance with all applicable laws. You understand that neither You nor Your Application will be permitted to access or use the Game Center service after expiration or termination of Your Agreement.

1.2 Apple may provide You with a unique identifier which is associated with an end-user's alias as part of the Game Center service (the "Player ID"). You agree to not display the Player ID to the end-user or to any third party, and You agree to only use the Player ID for differentiation of end-users in connection with Your use of the Game Center. You agree not to reverse look-up, trace, relate, associate, mine, harvest, or otherwise exploit the Player ID, aliases or other data or information provided by the Game Center service, except to the extent expressly permitted herein. For example, You will not attempt to determine the real identity of an end-user.

1.3 You will only use information provided by the Game Center service as necessary for providing services and functionality for Your Applications. For example, You will not host or export any such information to a third party service. Further, You agree not to transfer or copy any user information or data (whether individually or in the aggregate) obtained through the Game Center service to a third party except as necessary for providing services and functionality for Your Applications, and then only with express user consent and only if not otherwise prohibited in this Agreement.

1.4 You will not attempt to gain (or enable others to gain) unauthorized use or access to the Game Center service (or any part thereof) in any way, including but not limited to obtaining information from the Game Center service using any method not expressly permitted by Apple. For example, You may not use packet sniffers to intercept any communications protocols from systems or networks connected to the Game Center, scrape any data or user information from the Game Center, or use any third party software to collect information through the Game Center about players, game data, accounts, or service usage patterns.

2. Additional Restrictions

2.1 You agree not to harm or interfere with Apple's networks or servers, or any third party servers or networks connected to the Game Center service, or otherwise disrupt other developers' or end-users' use of the Game Center. You agree that, except for testing and development purposes, You will not create false accounts through the use of the Game Center service or otherwise use the Game Center service to misrepresent information about You or Your Application in a way that would interfere with an end-users' use of the Game Center service, e.g., creating inflated high scores through the use of cheat codes or falsifying the number of user accounts for Your Application.

2.2 You will not institute, assist, or enable any disruptions of the Game Center, such as through a denial of service attack, through the use of an automated process or service such as a spider, script, or bot, or through exploiting any bug in the Game Center service or Apple Software.

You agree not to probe, test or scan for vulnerabilities in the Game Center service. You further agree not to disable, spoof, hack, undermine or otherwise interfere with any data protection, security, verification or authentication mechanisms that are incorporated in or used by the Game Center service, or enable others to do so.

2.3 You will not transmit, store or otherwise make available any material that contains viruses or any other computer code, files or programs that may harm, disrupt or limit the normal operation of the Game Center or an iOS Product.

2.4 You agree not to use any portion of the Game Center service for sending any unsolicited, improper or inappropriate messages to end-users or for the purpose of poaching, phishing or spamming of Game Center users. You will not reroute (or attempt to reroute) users of the Game Center to another service using any information You obtain through the use of the Game Center service.

2.5 You shall not charge any fees to end-users for access to the Game Center service or for any data or information provided therein.

2.6 To the extent that Apple permits You to manage certain Game Center features and functionality for Your Application through App Store Connect (e.g., the ability to block fraudulent users or eliminate suspicious leaderboard scores from Your Application's leaderboard), You agree to use such methods only when You have a reasonable belief that such users or scores are the result of misleading, fraudulent, improper, unlawful or dishonest acts.

3. Your Acknowledgements. You acknowledge and agree that:

3.1 Apple may at any time, and from time to time, with or without prior notice to You (a) modify the Game Center service, including changing or removing any feature or functionality, or (b) modify, deprecate, reissue or republish the Game Center APIs or related APIs. You understand that any such modifications may require You to change or update Your Applications at Your own cost. Apple has no express or implied obligation to provide, or continue to provide, the Game Center service and may suspend or discontinue all or any portion of the Game Center service at any time. Apple shall not be liable for any losses, damages or costs of any kind incurred by You or any other party arising out of or related to any such service suspension or discontinuation or any such modification of the Game Center service or Game Center APIs.

3.2 Apple makes no guarantees to You in relation to the availability or uptime of the Game Center service and is not obligated to provide any maintenance, technical or other support for such service. Apple reserves the right to remove Your access to the Game Center service at any time in its sole discretion. Apple may monitor and collect information (including but not limited to technical and diagnostic information) about Your usage of the Game Center service to aid Apple in improving the Game Center and other Apple products or services and to verify Your compliance with this Agreement.

4. Additional Liability Disclaimer. APPLE SHALL NOT BE LIABLE FOR ANY DAMAGES OR LOSSES ARISING FROM ANY INTERRUPTIONS TO THE GAME CENTER OR ANY SYSTEM FAILURES, NETWORK ATTACKS, SCHEDULED OR UNSCHEDULED MAINTENANCE, OR OTHER INTERRUPTIONS.

Attachment 4
(to the Agreement)
Additional Terms for the use of iCloud

The following terms are in addition to the terms of the Agreement and apply to Your use of the iCloud service for software development and testing in connection with Your Application, or Web Software.

1. Use of iCloud

1.1 Your Applications and/or Web Software may access the iCloud service only if You have been assigned an entitlement by Apple. You agree not to access the iCloud service, or any content, data or information contained therein, other than through the iCloud Storage APIs, CloudKit APIs or via the CloudKit dashboard provided as part of the Program. You agree not to share Your entitlement with any third party or use it for any purposes not expressly permitted by Apple. You agree to use the iCloud service, the iCloud Storage APIs, and the CloudKit APIs only as expressly permitted by this Agreement and the iCloud Documentation, and in accordance with all applicable laws and regulations. Further, Your Web Software is permitted to access and use the iCloud service (e.g., to store the same type of data that is retrieved or updated in a Licensed Application) only so long as Your use of the iCloud service in such Web Software is comparable to Your use in the corresponding Licensed Application, as determined in Apple's sole discretion. In the event Apple Services permit You to use more than Your allotment of storage containers in iCloud in order to transfer data to another container for any reason, You agree to only use such additional container(s) for a reasonable limited time to perform such functions and not to increase storage and transactional allotments.

1.2 You understand that You will not be permitted to access or use the iCloud service for software development or testing after expiration or termination of Your Agreement; however end-users who have Your Applications or Web Software installed and who have a valid end-user account with Apple to use iCloud may continue to access their user-generated documents, private containers and files that You have chosen to store in such end-user's account via the iCloud Storage APIs or the CloudKit APIs in accordance with the applicable iCloud terms and conditions and these terms. You agree not to interfere with an end-user's ability to access iCloud (or the end-user's own user-generated documents, private containers and files) or to otherwise disrupt their use of iCloud in any way and at any time. With respect to data You store in public containers through the CloudKit APIs (whether generated by You or the end-user), Apple reserves the right to suspend access to or delete such data, in whole or in part, upon expiration or termination of Your Agreement, or as otherwise specified by Apple in the CloudKit dashboard.

1.3 Your Application is permitted to use the iCloud Storage APIs only for the purpose of storage and retrieval of key value data (e.g., a list of stocks in a finance App, settings for an App) for Your Applications and Web Software and for purposes of enabling Your end-users to access user-generated documents and files through the iCloud service. Your Application or Web Software application is permitted to use the CloudKit APIs for storing, retrieving, and querying of structured data that You choose to store in public or private containers in accordance with the iCloud Documentation. You agree not to knowingly store any content or materials via the iCloud Storage APIs or CloudKit APIs that would cause Your Application to violate any of the iCloud terms and conditions or the Program Requirements for Your Applications (e.g., Your Application may not store illegal or infringing materials).

1.4 You may allow a user to access their user-generated documents and files from iCloud through the use of Your Applications as well as from Web Software. However, You may not share key value data from Your Application with other Applications or Web Software, unless You are sharing such data among different versions of the same title, or You have user consent.

1.5 You are responsible for any content and materials that You store in iCloud through the use of the CloudKit APIs and iCloud Storage APIs and must take reasonable and appropriate steps to protect information You store through the iCloud service. With respect to third party claims related to content and materials stored by Your end-users in Your Applications through the use of the iCloud Storage APIs or CloudKit APIs (e.g., user-generated documents, end-user posts in public containers), You agree to be responsible for properly handling and promptly processing any such claims, including but not limited to Your compliance with notices sent pursuant to the Digital Millennium Copyright Act (DMCA).

1.6 Unless otherwise expressly permitted by Apple in writing, You will not use iCloud, the iCloud Storage APIs, CloudKit APIs, or any component or function thereof, to create, receive, maintain or transmit any sensitive, individually-identifiable health information, including “protected health information” (as such term is defined at 45 C.F.R § 160.103), or use iCloud in any manner that would make Apple (or any Apple Subsidiary) Your or any third party’s “business associate” as such term is defined at 45 C.F.R. § 160.103. You agree to be solely responsible for complying with any reporting requirements under law or contract arising from Your breach of this Section.

2. Additional Requirements

2.1 You understand there are storage capacity, transmission, and transactional limits for the iCloud service, both for You as a developer and for Your end-users. If You reach or Your end-user reaches such limits, then You or Your end-user may be unable to use the iCloud service until You or Your end-user have removed enough data from the service to meet the capacity limits, increased storage capacity or otherwise modified Your usage of iCloud, and You or Your end-user may be unable to access or retrieve data from iCloud during this time.

2.2 You may not charge any fees to users for access to or use of the iCloud service through Your Applications or Web Software, and You agree not to sell access to the iCloud service in any other way, including but not limited to reselling any part of the service. You will only use the iCloud service in Your Application or Web Software to provide storage for an end-user who has a valid end-user iCloud account with Apple and only for use in accordance with the terms of such user account, except that You may use the CloudKit APIs to store data in public containers for access by end-users regardless of whether such users have iCloud accounts. You will not induce any end-user to violate the terms of their applicable iCloud service agreement with Apple or to violate any Apple usage policies for data or information stored in the iCloud service.

2.3 You may not excessively use the overall network capacity or bandwidth of the iCloud service or otherwise burden such service with unreasonable data loads or queries. You agree not to harm or interfere with Apple’s networks or servers, or any third party servers or networks connected to the iCloud, or otherwise disrupt other developers’ or users’ use of the iCloud service.

2.4 You will not disable or interfere with any warnings, system settings, notices, or notifications that are presented to an end-user of the iCloud service by Apple.

3. Your Acknowledgements

You acknowledge and agree that:

3.1 Apple may at any time, with or without prior notice to You (a) modify the iCloud Storage APIs or the CloudKit APIs, including changing or removing any feature or functionality, or (b) modify, deprecate, reissue or republish such APIs. You understand that any such modifications may require You to change or update Your Applications or Web Software at Your own cost. Apple has no express or implied obligation to provide, or continue to provide, the iCloud service

and may suspend or discontinue all or any portion of the iCloud service at any time. Apple shall not be liable for any losses, damages or costs of any kind incurred by You or any other party arising out of or related to any such service suspension or discontinuation or any such modification of the iCloud service, iCloud Storage APIs or the CloudKit APIs.

3.2 The iCloud service is not available in all languages or in all countries and Apple makes no representation that the iCloud service is appropriate or available for use in any particular location. To the extent You choose to provide access to the iCloud service in Your Applications or Web Software through the iCloud Storage APIs or CloudKit APIs (e.g., to store data in a public or private container), You do so at Your own initiative and are responsible for compliance with any applicable laws or regulations.

3.3 Apple makes no guarantees to You in relation to the availability or uptime of the iCloud service and is not obligated to provide any maintenance, technical or other support for the iCloud service. Apple is not responsible for any expenditures, investments, or commitments made by You in connection with the iCloud service, or for any use of or access to the iCloud service.

3.4 Apple reserves the right to suspend or revoke Your access to the iCloud service or impose limits on Your use of the iCloud service at any time in Apple's sole discretion. In addition, Apple may impose or adjust the limit of transactions Your Applications or Web Software may send or receive through the iCloud service or the resources or capacity that they may use at any time in Apple's sole discretion.

3.5 Apple may monitor and collect information (including but not limited to technical and diagnostic information) about usage of the iCloud service through the iCloud Storage APIs, CloudKit APIs, or CloudKit dashboard, in order to aid Apple in improving the iCloud service and other Apple products or services; provided however that Apple will not access or disclose any end-user data stored in a private container through CloudKit, any Application data stored in a public container through CloudKit, or any user-generated documents, files or key value data stored using the iCloud Storage APIs and iCloud service, unless Apple has a good faith belief that such access, use, preservation or disclosure is reasonably necessary to comply with a legal or regulatory process or request, or unless otherwise requested by an end-user with respect to data stored via the iCloud Storage APIs in that end-user's iCloud account or in that end-user's private container via the CloudKit APIs.

3.6 Further, to the extent that You store any personal information relating to an individual or any information from which an individual can be identified (collectively, "Personal Data") in the iCloud service through the use of the iCloud Storage APIs or CloudKit APIs, You agree that Apple (and any applicable Apple Subsidiary for purposes of this Section 3.6) will act as Your agent for the processing, storage and handling of any such Personal Data. Apple agrees to ensure that any persons authorized to process such Personal Data have agreed to maintain confidentiality (whether through terms or under an appropriate statutory obligation). Apple shall have no right, title or interest in such Personal Data solely as a result of Your use of the iCloud service. You agree that You are solely liable and responsible for ensuring Your compliance with all applicable laws, including privacy and data protection laws, regarding the use or collection of data and information through the iCloud service. You are also responsible for all activity related to such Personal Data, including but not limited to, monitoring such data and activity, preventing and addressing inappropriate data and activity, and removing and terminating access to data. Further, You are responsible for safeguarding and limiting access to such Personal Data by Your personnel and for the actions of Your personnel who are permitted access to use the iCloud service on Your behalf. Personal Data provided by You and Your users to Apple through the iCloud service may be used by Apple only as necessary to provide and improve the iCloud service and to perform the following actions on Your behalf. Apple shall:

- (a) use and handle such Personal Data only in accordance with the instructions and permissions from You set forth herein, as well as applicable laws, regulations, accords, or treaties. In the EEA and Switzerland, Personal Data will be handled by Apple only in accordance with the instructions and permissions from You set forth herein unless otherwise required by European Union or Member State Law, in which case Apple will notify You of such other legal requirement (except in limited cases where Apple is prohibited by law from doing so);
- (b) provide You with reasonable means to manage any user access, deletion, or restriction requests as defined in applicable law. In the event of an investigation of You arising from Your good faith use of the iCloud service by a data protection regulator or similar authority regarding such Personal Data, Apple shall provide You with reasonable assistance and support;
- (c) notify You by any reasonable means Apple selects, without undue delay and taking account of applicable legal requirements applying to You which mandate notification within a specific timeframe, if Apple becomes aware that Your Personal Data has been altered, deleted or lost as a result of any unauthorized access to the Service. You are responsible for providing Apple with Your updated contact information for such notification purposes in accordance with the terms of this Agreement;
- (d) make available to You the information necessary to demonstrate compliance obligations set forth in Article 28 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 (GDPR) and to allow for and contribute to audits required under these provisions; provided however that You agree that Apple's ISO 27001 and 27018 certifications shall be considered sufficient for such required audit purposes;
- (e) assist You, by any reasonable means Apple selects, in ensuring compliance with its obligations pursuant to Articles 33 to 36 of the GDPR. If Apple receives a third party request for information You have stored in the iCloud service, then unless otherwise required by law or the terms of such request, Apple will notify You of its receipt of the request and notify the requester of the requirement to address such request to You. Unless otherwise required by law or the request, You will be responsible for responding to the request;
- (f) use industry-standard measures to safeguard Personal Data during the transfer, processing and storage of Personal Data. Encrypted Personal Data may be stored at Apple's geographic discretion; and
- (g) ensure that where Personal Data, arising in the context of this Agreement, is transferred from the EEA or Switzerland it is only to a third country that ensures an adequate level of protection or using the Model Contract Clauses/Swiss Transborder Data Flow Agreement which will be provided to You upon request if you believe that Personal Data is being transferred.

4. Additional Liability Disclaimer. NEITHER APPLE NOR ITS SERVICE PROVIDERS SHALL BE LIABLE FOR ANY DAMAGES OR LOSSES ARISING FROM ANY USE, MISUSE, RELIANCE ON, INABILITY TO USE, INTERRUPTION, SUSPENSION OR TERMINATION OF iCloud, iCloud STORAGE APIS, OR CLOUDKIT APIS, OR FOR ANY UNAUTHORIZED ACCESS TO, ALTERATION OF, OR DELETION, DESTRUCTION, DAMAGE, LOSS OR FAILURE TO STORE ANY OF YOUR DATA OR ANY END-USER DATA OR ANY CLAIMS ARISING FROM ANY USE OF THE FOREGOING BY YOUR END-USERS, INCLUDING ANY CLAIMS REGARDING DATA PROCESSING OR INAPPROPRIATE OR UNAUTHORIZED DATA STORAGE OR HANDLING BY YOU IN VIOLATION OF THIS AGREEMENT.

Attachment 5
(to the Agreement)
Additional Terms for Passes

The following terms are in addition to the terms of the Agreement and apply to Your development and distribution of Passes:

1. Pass Type ID Usage and Restrictions

You may use the Pass Type ID only for purposes of digitally signing Your Pass for use with Wallet and/or for purposes of using the APN service with Your Pass. You may distribute Your Pass Type ID as incorporated into Your Pass in accordance with **Section 2** below only so long as such distribution is under Your own trademark or brand. To the extent that You reference a third party's trademark or brand within Your Pass (e.g., a store coupon for a particular good), You represent and warrant that You have any necessary rights. You agree not to share, provide or transfer Your Pass Type ID to any third party (except for a Service Provider and only to the limited extent permitted herein), nor use Your Pass Type ID to sign a third party's pass.

2. Pass Distribution; Marketing Permissions

2.1 Subject to the terms of this Agreement, You may distribute Your Passes to end-users by the web, email, or an Application. You understand that Passes must be accepted by such users before they will be loaded into Wallet and that Passes can be removed or transferred by such users at any time.

2.2 By distributing Your Passes in this manner, You represent and warrant to Apple that Your Passes comply with the Documentation and Program Requirements then in effect and the terms of this Attachment 5. Apple shall not be responsible for any costs, expenses, damages, losses (including without limitation lost business opportunities or lost profits) or other liabilities You may incur as a result of distributing Your Passes in this manner.

2.3 You agree to state on the Pass Your name and address, and the contact information (telephone number; email address) to which any end-user questions, complaints, or claims with respect to Your Pass should be directed. You will be responsible for attaching or otherwise including, at Your discretion, any relevant end-user usage terms with Your Pass. Apple will not be responsible for any violations of Your end-user usage terms. You will be solely responsible for all user assistance, warranty and support of Your Pass. You may not charge any fees to end-users in order to use Wallet to access Your Pass.

2.4 By distributing Your Passes as permitted in this Agreement, You hereby permit Apple to use (i) screen shots of Your Pass; (ii) trademarks and logos associated with Your Pass; and (iii) Pass Information, for promotional purposes in marketing materials and gift cards, excluding those portions which You do not have the right to use for promotional purposes and which You identify in writing to Apple. You also permit Apple to use images and other materials that You may provide to Apple, at Apple's reasonable request, for promotional purposes in marketing materials and gift cards.

3. Additional Pass Requirements

3.1 Apple may provide You with templates to use in creating Your Passes, and You agree to choose the relevant template for Your applicable use (e.g., You will not use the boarding pass template for a movie ticket).

3.2 Passes may only operate and be displayed in Wallet, which is Apple's designated container area for the Pass, through Wallet on the lock screen of an iOS Product, or on Apple Watch in accordance with the Documentation.

3.3. Notwithstanding anything else in **Section 3.3.9** of the Agreement, with prior user consent, You and Your Pass may share user and/or device data with Your Application so long as such sharing is for the purpose of providing a service or function that is directly relevant to the use of the Pass and/or Application, or to serve advertising in accordance with **Sections 3.3.12** of the Agreement.

3.4 If You would like to use embedded Near Field Communication (NFC) technology with Your Pass, then You may request an Apple Certificate for the use of NFC with a Pass from the Developer web portal. Apple will review Your request and may provide You with a separate agreement for the use of such Apple Certificate. Apple reserves the right to not provide You with such Apple Certificate.

4. Apple's Right to Review Your Pass; Revocation. You understand and agree that Apple reserves the right to review and approve or reject any Pass that You would like to distribute for use by Your end-users, or that is already in use by Your end-users, at any time during the Term of this Agreement. If requested by Apple, You agree to promptly provide such Pass to Apple. You agree not to attempt to hide, misrepresent, mislead, or obscure any features, content, services or functionality in Your Pass from Apple's review or otherwise hinder Apple from being able to fully review such Pass, and, You agree to cooperate with Apple and answer questions and provide information and materials reasonably requested by Apple regarding such Pass. If You make any changes to Your Pass after submission to Apple, You agree to notify Apple and, if requested by Apple, resubmit Your Pass prior to any distribution of the modified Pass to Your end-users. Apple reserves the right to revoke Your Pass Type ID and reject Your Pass for distribution to Your end-users for any reason and at any time in its sole discretion, even if Your Pass meets the Documentation and Program Requirements and terms of this Attachment 5; and, in that event, You agree that You may not distribute such Pass to Your end-users.

5. Additional Liability Disclaimer. APPLE SHALL NOT BE LIABLE FOR ANY DAMAGES OR LOSSES ARISING FROM ANY USE, DISTRIBUTION, MISUSE, RELIANCE ON, INABILITY TO USE, INTERRUPTION, SUSPENSION, OR TERMINATION OF WALLET, YOUR PASS TYPE ID, YOUR PASSES, OR ANY SERVICES PROVIDED IN CONNECTION THEREWITH, INCLUDING BUT NOT LIMITED TO ANY LOSS OR FAILURE TO DISPLAY YOUR PASS IN WALLET OR ANY END-USER CLAIMS ARISING FROM ANY USE OF THE FOREGOING BY YOUR END-USERS.

Attachment 6
(to the Agreement)
Additional Terms for the use of the Apple Maps Service

The following terms are in addition to the terms of the Agreement and apply to any use of the Apple Maps Service in Your Application, website, or web application.

1. Use of the Maps Service

1.1 Your Application may access the Apple Maps Service only via the MapKit API or through MapKit JS, and Your website or web application may access the Apple Maps Service only via MapKit JS. You agree not to access the Apple Maps Service or the Map Data other than through the MapKit API or MapKit JS, as applicable, and You agree that Your use of the Apple Maps Service in Your Applications, websites, or web applications must comply with the Program Requirements.

1.2 You will use the Apple Maps Service and Map Data only as necessary for providing services and functionality for Your Application, website, or web application. You agree to use the Apple Maps Service, MapKit API and MapKit JS only as expressly permitted by this Agreement (including but not limited to this Attachment 6) and the MapKit and MapKit JS Documentation, and in accordance with all applicable laws and regulations.

1.3 You acknowledge and agree that results You receive from the Apple Maps Service may vary from actual conditions due to variable factors that can affect the accuracy of the Map Data, such as weather, road and traffic conditions, and geopolitical events.

2. Additional Restrictions

2.1 Neither You nor Your Application, website or web application may remove, obscure or alter Apple's or its licensors' copyright notices, trademarks, or any other proprietary rights or legal notices, documents or hyperlinks that may appear in or be provided through the Apple Maps Service.

2.2 You will not use the Apple Maps Service in any manner that enables or permits bulk downloads or feeds of the Map Data, or any portion thereof, or that in any way attempts to extract, scrape or reutilize any portions of the Map Data. For example, neither You nor Your Application may use or make available the Map Data, or any portion thereof, as part of any secondary or derived database.

2.3 Except to the extent expressly permitted herein, You agree not to copy, modify, translate, create a derivative work of, publish or publicly display the Map Data in any way. Further, You may not use or compare the data provided by the Apple Maps Service for the purpose of improving or creating another mapping service. You agree not to create or attempt to create a substitute or similar service through use of or access to the Apple Maps Service.

2.4 Your Application, website, or web application may display the Map Data only as permitted herein, and when displaying it on a map, You agree that it will be displayed only on an Apple map provided through the Apple Maps Service. Further, You may not surface Map Data within Your Application, website, or web application without displaying the corresponding Apple map (e.g., if You surface an address result through the Apple Maps Service, You must display the corresponding map with the address result).

2.5 Unless otherwise expressly permitted in the MapKit Documentation or MapKit JS Documentation, Map Data may not be cached, pre-fetched, or stored by You or Your Application, website, or web application other than on a temporary and limited basis solely to improve the

performance of the Apple Maps Service with Your Application, website, or web application.

2.6 You may not charge any fees to end-users solely for access to or use of the Apple Maps Service through Your Application, website, or web application, and You agree not to sell access to the Apple Maps Service in any other way.

2.7 You acknowledge and agree that Apple may impose restrictions on Your usage of the Apple Maps Service (e.g., limiting the number of transactions Your Application can make through the MapKit API) or may revoke or remove Your access to the Apple Maps Service (or any part thereof) at any time in its sole discretion. Further, You acknowledge and agree that results You may receive from the Apple Maps Service may vary from actual conditions due to variable factors that can affect the accuracy of Map Data, such as road or weather conditions.

3. Your Acknowledgements. You acknowledge and agree that:

3.1 Apple may at any time, with or without prior notice to You (a) modify the Apple Maps Service and/or the MapKit API or MapKit JS, including changing or removing any feature or functionality, or (b) modify, deprecate, reissue or republish the MapKit API or MapKit JS. You understand that any such modifications may require You to change or update Your Applications, website, or web applications at Your own cost. Apple has no express or implied obligation to provide, or continue to provide, the Apple Maps Service and may suspend or discontinue all or any portion of the Apple Maps Service at any time. Apple shall not be liable for any losses, damages or costs of any kind incurred by You or any other party arising out of or related to any such service suspension or discontinuation or any such modification of the Apple Maps Service, MapKit API, or MapKit JS.

3.2 The Apple Maps Service may not be available in all countries or languages, and Apple makes no representation that the Apple Maps Service is appropriate or available for use in any particular location. To the extent You choose to provide access to the Apple Maps Service in Your Applications, website, or web applications or through the MapKit API or MapKit JS, You do so at Your own initiative and are responsible for compliance with any applicable laws.

4. Apple's Right to Review Your MapKit JS Implementation. You understand and agree that Apple reserves the right to review and approve or reject Your implementation of MapKit JS in Your Application, website, or web applications, at any time during the Term of this Agreement. If requested by Apple, You agree to promptly provide information regarding Your implementation of MapKit JS to Apple. You agree to cooperate with Apple and answer questions and provide information and materials reasonably requested by Apple regarding such implementation. Apple reserves the right to revoke Your MapKit JS keys and similar credentials at any time in its sole discretion, even if Your use of MapKit JS meets the Documentation and Program Requirements and terms of this Attachment. By way of example only, Apple may do so if Your MapKit JS implementation places an excessive and undue burden on the Apple Maps Service, obscures or removes the Apple Maps logo or embedded links when displaying a map, or uses the Apple Maps Service with corresponding offensive or illegal map content.

5. Additional Liability Disclaimer. NEITHER APPLE NOR ITS LICENSORS OR SERVICE PROVIDERS SHALL BE LIABLE FOR ANY DAMAGES OR LOSSES ARISING FROM ANY USE, MISUSE, RELIANCE ON, INABILITY TO USE, INTERRUPTION, SUSPENSION OR TERMINATION OF THE APPLE MAPS SERVICE, INCLUDING ANY INTERRUPTIONS DUE TO SYSTEM FAILURES, NETWORK ATTACKS, OR SCHEDULED OR UNSCHEDULED MAINTENANCE.

Attachment 7
(to the Agreement)
Additional Terms for Safari Extensions

The following terms are in addition to the terms of the Agreement and apply to Safari Extensions signed with an Apple Certificate:

1.1 Safari Extension Requirements

If You would like to submit Your Safari Extension for hosting by Apple in the Safari Extensions Gallery or otherwise distribute Your Safari Extension signed with an Apple Certificate, then You agree to abide by the following requirements for such Safari Extensions, as they may be modified by Apple from time to time:

- Your Safari Extension must not contain any malware, malicious or harmful code, or other internal component (e.g. computer viruses, trojan horses, "backdoors"), which could damage, destroy, or adversely affect Apple hardware, software or services, or other third party software, firmware, hardware, data, systems, services, or networks;
- Your Safari Extensions must not be designed or marketed for the purpose of harassing, abusing, stalking, spamming, misleading, defrauding, threatening or otherwise violating the legal rights (such as the rights of privacy and publicity) of others. Further, You may not create a Safari Extension that tracks the behavior of a user (e.g., their browsing sites) without their express consent;
- Your Safari Extension must only operate in Safari on macOS's designated container area for the Safari Extension, and must not disable, override or otherwise interfere with any Apple-implemented system alerts, warnings, display panels, consent panels and the like;
- Your Safari Extension must have a single purpose and updates must not change the single purpose of Your Safari Extension. You agree to accurately represent the features and functionality of Your Extension to the user and to act in accordance with such representations. For example, Your Safari Extension may not redirect a link (or any affiliate link) on a website unless that behavior is disclosed to the user;
- Your Safari Extension must not be bundled with an app that has a different purpose than the Safari Extension.
- Your Safari Extension may not inject ads into a website and may not display pop up ads;
- You must not script or automate turning on Your Safari Extension or enable others to do so.
- You agree not to bundle Your .safariextz-based Safari Extension with any other applications or extensions. You may allow a user to install Your .safariextz-based Safari Extension only by: (a) clicking an Install button in the Safari Extensions Gallery; or (b) clicking the .safariextz file to open the Safari Extension in Safari and allowing Safari to prompt the user to confirm the installation;
- Safari Extensions must not interfere with security, user interface, user experience, features or functionality of Safari, macOS, or other Apple-branded products; and
- Your Safari Extensions must comply with the Documentation and all applicable laws and regulations, including those in any jurisdictions in which such Safari Extensions may be offered or made available. You should review the latest Safari Extensions Development Guide and Safari App Extensions Development Guide available on the Developer web portal.

You understand that Apple may revoke the Apple Certificates used to sign Your Safari Extensions at any time, in its sole discretion. Further, You acknowledge and agree that Apple may block Your Safari Extension (such that it may be unavailable or inaccessible to Safari users) if it does not comply with the requirements set forth above in this **Section 1.1** or otherwise adversely affects users of Safari or macOS.

1.2 Submission to the Safari Extensions Gallery

If You are submitting Your Safari Extension for hosting by Apple on the Safari Extensions Gallery, You agree that Your Safari Extension complies with the requirements set forth above in **Section 1.1**, and with any additional guidelines that Apple may post on the Program web portal for the Safari Extensions Gallery.

You understand that Apple will review such Extensions prior to posting them on the Safari Extensions Gallery and that Apple can approve or reject Your Safari Extension in its sole discretion. Further, You agree that Apple reserves the right to remove Safari Extensions from the Safari Extensions Gallery at any time in its sole discretion without notice to You. By submitting Your Safari Extension for hosting by Apple, You consent to Apple hosting it for You on the Safari Extensions Gallery. You will be responsible for attaching or otherwise including, at Your discretion, any relevant end-user usage terms with such Safari Extension and for all user assistance, warranty and support of Your Safari Extension. You may remove Your Safari Extension from the Safari Extensions Gallery by emailing: safari-extensions@apple.com.

By distributing Your Safari Extension through the Safari Extensions Gallery, You hereby permit Apple to use (a) screen shots of Your Safari Extension; and (b) trademarks and logos associated with Your Safari Extension for promotional purposes in marketing materials, excluding those portions which You do not have the right to use for promotional purposes and which You identify in writing to Apple. You also permit Apple to use images and other materials that You may provide to Apple, at Apple's reasonable request, for promotional purposes in marketing materials.

Schedule 1

1. Appointment of Agent

1.1 You hereby appoint Apple and Apple Subsidiaries (collectively “Apple”) as: (i) Your agent for the marketing and delivery of the Licensed Applications to end-users located in those countries listed on Exhibit A, Section 1 to this Schedule 1, subject to change; and (ii) Your commissionaire for the marketing and delivery of the Licensed Applications to end-users located in those countries listed on Exhibit A, Section 2 to this Schedule 1, subject to change, during the Delivery Period. The most current list of App Store countries among which You may select shall be set forth in the App Store Connect tool and may be updated by Apple from time to time. You hereby acknowledge that Apple will market and make the Licensed Applications available for download by end-users, through one or more App Stores, for You and on Your behalf. For purposes of this Schedule 1, the following terms apply:

(a) “You” shall include App Store Connect users authorized by You to submit Licensed Applications and associated metadata on Your behalf; and

(b) “end-user” includes individual purchasers as well as eligible users associated with their account via Family Sharing. For institutional customers, “end-user” shall mean the individual authorized to use the Licensed Application, the institutional administrator responsible for management of installations on shared devices, as well as authorized institutional purchasers themselves, including educational institutions approved by Apple, which may acquire the Licensed Applications for use by their employees, agents, and affiliates.

(c) For the purposes of this Schedule 1, the term “Licensed Application” shall include any content, functionality, extensions, stickers, or services offered in the software application.

1.2 In furtherance of Apple’s appointment under Section 1.1 of this Schedule 1, You hereby authorize and instruct Apple to:

(a) market, solicit and obtain orders on Your behalf for Licensed Applications from end-users located in the countries identified by You in the App Store Connect tool;

(b) provide hosting services to You subject to the terms of the Agreement, in order to allow for the storage of, and end-user access to, the Licensed Applications and to enable third party hosting of such Licensed Applications solely as otherwise licensed or authorized by Apple;

(c) make copies of, format, and otherwise prepare Licensed Applications for acquisition and download by end-users, including adding the Security Solution and other optimizations identified in the Agreement;

(d) allow or, in the case of cross-border assignments of VPP purchases, arrange for end-users to access and re-access copies of the Licensed Applications, so that end-users may acquire from You and electronically download those Licensed Applications, Licensed Application Information, and associated metadata through one or more App Stores, and You hereby authorize distribution of Your Licensed Applications under this Schedule 1 to end-users with accounts associated with another end-user’s via Family Sharing. You also hereby authorize distribution of Your Licensed Applications under this Schedule 1 for use by multiple end users under a single Apple ID when the Licensed Application is provided to such end-users through Apple Configurator in accordance with the Apple Configurator software license agreement or requested by a single institutional customer via the Volume Purchase Program for use by its end-users and/or for installation on devices with no associated iTunes Account that are owned or controlled by that institutional customer in accordance with the Volume Purchase Program terms, conditions, and program

requirements;

(e) use (i) screen shots, previews, and/or up to 30 second excerpts of the Licensed Applications; (ii) trademarks and logos associated with the Licensed Applications; and (iii) Licensed Application Information, for promotional purposes in marketing materials and gift cards, excluding those portions of the Licensed Applications, trademarks or logos, or Licensed Application Information which You do not have the right to use for promotional purposes, and which You identify in writing at the time that the Licensed Applications are delivered by You to Apple under Section 2.1 of this Schedule 1, and use images and other materials that You may provide to Apple, at Apple's reasonable request, for promotional purposes in marketing materials and gift cards. In addition, and subject to the limitation set forth above, You agree that Apple may use screen shots, icons, and up to 30 second excerpts of Your Licensed Applications for use at Apple Developer events (e.g., WWDC, Tech Talks) and in developer documentation;

(f) otherwise use Licensed Applications, Licensed Application Information and associated metadata as may be reasonably necessary in the delivery of the Licensed Applications in accordance with this Schedule 1. You agree that no royalty or other compensation is payable for the rights described above in Section 1.2 of this Schedule 1; and

(g) facilitate distribution of pre-release versions of Your Licensed Applications ("Beta Testing") to end-users designated by You in accordance with the Agreement, availability, and other program requirements as updated from time to time in the App Store Connect tool. For the purposes of such Beta Testing, You hereby waive any right to collect any purchase price, proceeds or other remuneration for the distribution and download of such pre-release versions of Your Licensed Application. You further agree that You shall remain responsible for the payment of any royalties or other payments to third parties relating to the distribution and user of Your pre-release Licensed Applications, as well as compliance with any and all laws for territories in which such Beta Testing takes place. For the sake of clarity, no commission shall be owed to Apple with respect to such distribution.

1.3 The parties acknowledge and agree that their relationship under this Schedule 1 is, and shall be, that of principal and agent, or principal and commissionaire, as the case may be, as described in Exhibit A, Section 1 and Exhibit A, Section 2 respectively, and that You, as principal, are, and shall be, solely responsible for any and all claims and liabilities involving or relating to, the Licensed Applications, as provided in this Schedule 1. The parties acknowledge and agree that Your appointment of Apple as Your agent or commissionaire, as the case may be, under this Schedule 1 is non-exclusive. You hereby represent and warrant that You own or control the necessary rights in order to appoint Apple and Apple Subsidiaries as Your worldwide agent and/or commissionaire for the delivery of Your Licensed Applications, and that the fulfillment of such appointment by Apple and Apple Subsidiaries shall not violate or infringe the rights of any third party.

1.4 For purposes of this Schedule 1, the "Delivery Period" shall mean the period beginning on the Effective Date of the Agreement, and expiring on the last day of the Agreement or any renewal thereof; provided, however, that Apple's appointment as Your agent shall survive expiration of the Agreement for a reasonable phase-out period not to exceed thirty (30) days and further provided that, solely with respect to Your end-users, subsections 1.2(b), (c), and (d) of this Schedule 1 shall survive termination or expiration of the Agreement unless You indicate otherwise pursuant to sections 4.1 and 6.2 of this Schedule 1.

1.5 All of the Licensed Applications delivered by You to Apple under Section 2.1 of this Schedule 1 shall be made available by Apple for download by end-users at no charge. Apple shall have no duty to collect any fees for the Licensed Applications for any end-user and shall have no payment obligation to You with respect to any of those Licensed Applications under this Schedule 1. In the event that You intend to charge end-users a fee for any Licensed Application or In-App Purchase, You must enter (or have previously entered) into a separate extension of this agreement (Schedule 2) with Apple with respect to that Licensed Application.

2. Delivery of the Licensed Applications to Apple

2.1 You will deliver to Apple, at Your sole expense, using the App Store Connect tool or other mechanism provided by Apple, the Licensed Applications, Licensed Application Information and associated metadata, in a format and manner prescribed by Apple, as required for the delivery of the Licensed Applications to end-users in accordance with this Schedule 1. Metadata You deliver to Apple under this Schedule 1 will include: (i) the title and version number of each of the Licensed Applications; (ii) the countries You designate, in which You wish Apple to allow end-users to download those Licensed Applications; (iii) any copyright or other intellectual property rights notices; (iv) Your privacy policy, if any; (v) Your end-user license agreement (“EULA”), if any, in accordance with Section 3.2 of this Schedule 1; and (vi) any additional metadata set forth in the Documentation and/or the App Store Connect Tool as may be updated from time to time, including metadata designed to enhance search and discovery for content on Apple-branded hardware.

2.2 All Licensed Applications will be delivered by You to Apple using software tools, a secure FTP site address and/or such other delivery methods as prescribed by Apple.

2.3 You hereby certify that all of the Licensed Applications You deliver to Apple under this Schedule 1 are authorized for export from the United States to each of the countries designated by You under Section 2.1 hereof, in accordance with the requirements of all applicable laws, including but not limited to the United States Export Administration Regulations, 15 C.F.R. Parts 730-774 and the International Traffic in Arms Regulations 22 C.F.R. Parts 120-130. Without limiting the generality of this Section 2.3, You certify that (i) none of the Licensed Applications contains, uses or supports any data encryption or cryptographic functions; or (ii) in the event that any Licensed Application contains, uses or supports any such data encryption or cryptographic functionality, You certify that You have complied with the United States Export Administration Regulations, and are in possession of, and will, upon request, provide Apple with a PDF copy of Your Encryption Registration Number (ERN), or export classification ruling (CCATS) issued by the United States Commerce Department, Bureau of Industry and Security and PDF copies of appropriate authorizations from other countries that mandate import authorizations for that Licensed Application, as required. You acknowledge that Apple is relying upon Your certification in this Section 2.3 in allowing end-users to access and download the Licensed Applications under this Schedule 1. Except as provided in this Section 2.3, Apple will be responsible for compliance with the requirements of the Export Administration Regulations in allowing end-users to access and download the Licensed Applications under this Schedule 1.

2.4 You shall be responsible for determining and implementing any age ratings or parental advisory warnings required by the applicable government regulations, ratings board(s), service(s), or other organizations (each a “Ratings Board”) for any video, television, gaming or other content offered in Your Licensed Application for each locality in the Territory. Where applicable, you shall also be responsible for providing any content restriction tools or age verification functionality before enabling end-users to access mature or otherwise regulated content within Your Licensed Application.

3. Ownership and End-User Licensing and Delivery of the Licensed Applications to End Users

3.1 You acknowledge and agree that Apple, in the course of acting as agent and/or commissionaire for You, is hosting, or pursuant to Section 1.2(b) of this Schedule 1 may enable authorized third parties to host, the Licensed Application(s), and is allowing the download of those Licensed Application(s) by end-users, on Your behalf. However, You are responsible for hosting and delivering content or services sold or delivered by You using the In-App Purchase API, except for content that is included within the Licensed Application itself (i.e., the In-App Purchase simply unlocks the content) or content hosted by Apple pursuant to Section 3.3 of Attachment 2 of

the Agreement. The parties acknowledge and agree that Apple shall not acquire any ownership interest in or to any of the Licensed Applications or Licensed Applications Information, and title, risk of loss, responsibility for, and control over the Licensed Applications shall, at all times, remain with You. Apple may not use any of the Licensed Applications or Licensed Application Information for any purpose, or in any manner, except as specifically authorized in the Agreement or this Schedule 1.

3.2 You may deliver to Apple Your own EULA for any Licensed Application at the time that You deliver that Licensed Application to Apple, in accordance with Section 2.1 of this Schedule 1; provided, however, that Your EULA must include and may not be inconsistent with the minimum terms and conditions specified on Exhibit B to this Schedule 1 and must comply with all applicable laws in all countries where You wish Apple to allow end-users to download that Licensed Application. Apple shall enable each end-user to review Your EULA (if any) at the time that Apple delivers that Licensed Application to that end-user, and Apple shall notify each end-user that the end-user's use of that Licensed Application is subject to the terms and conditions of Your EULA (if any). In the event that You do not furnish Your own EULA for any Licensed Application to Apple, You acknowledge and agree that each end-user's use of that Licensed Application shall be subject to Apple's standard EULA (which is part of the App Store Terms of Service).

3.3 You hereby acknowledge that the EULA for each of the Licensed Applications is solely between You and the end-user and conforms to applicable law, and Apple shall not be responsible for, and shall not have any liability whatsoever under, any EULA or any breach by You or any end-user of any of the terms and conditions of any EULA.

3.4 A Licensed Application may read or play content (magazines, newspapers, books, audio, music, video) that is offered outside of the Licensed Application (such as, by way of example, through Your website) provided that You do not link to or market external offers for such content within the Licensed Application. You are responsible for authentication access to content acquired outside of the Licensed Application.

3.5 Subject to availability, You may offer in-app subscriptions for free in select territories using the In-App Purchase API subject to the terms of this Schedule 1, provided that the Licensed Application is Newsstand-enabled pursuant to section 3.7 below and You clearly and conspicuously disclose to users the following information regarding Your in-app subscription:

- Title of publication or service
- Subscription may be discontinued at any time by removing app from device
- Links to Your Privacy Policy and Terms of Use

3.6 To the extent You promote and offer in-app subscriptions, You must do so in compliance with all legal and regulatory requirements.

3.7 If Your Licensed Application is periodical content-based (e.g., magazines and newspapers), Apple may provide You with the name, email address, and zip code associated with an end-user's account when they request an auto-renewing subscription via the In-App Purchase API, provided that such user consents to the provision of data to You, and further provided that You may only use such data to promote Your own products and do so in strict compliance with Your publicly posted Privacy Policy, a copy of which must be readily viewed and is consented to in Your Licensed Application.

3.8 Licensed Applications offering subscription services under this Schedule 1 must be included in Apple's Newsstand program provided that, in addition to the requirements set forth in paragraphs 3.5, 3.6 and 3.7, You:

- Enable the Licensed Application as a Newsstand app in the App Store Connect tool

- Authorize Apple to select “Newsstand” as the Licensed Application’s secondary category
- Utilize the In-App Purchase API, include any additional code, and comply with any other requirements as identified and updated from time to time in Newsstand-related documentation found in the iOS developer library and the App Store Connect Developer Guide
- Provide updated cover art with each new issue
- Confirm that the content of the Licensed Application is a periodical (e.g., newspaper or magazine)

You acknowledge and agree that Apple reserves the right to recategorize or reject Your Licensed Application if it is not appropriate for Newsstand.

4. Content Restrictions and Software Rating

4.1 You represent and warrant that: (a) You have the right to enter into this Agreement, to reproduce and distribute each of the Licensed Applications, and to authorize Apple to permit end-users to download and use each of the Licensed Applications through one or more App Stores; (b) none of the Licensed Applications, or Apple’s or end-users’ permitted uses of those Licensed Applications, violate or infringe any patent, copyright, trademark, trade secret or other intellectual property or contractual rights of any other person, firm, corporation or other entity and that You are not submitting the Licensed Applications to Apple on behalf of one or more third parties; (c) each of the Licensed Applications is authorized for distribution, sale and use in, export to, and import into each of the countries designated by You under Section 2.1 of this Schedule 1, in accordance with the laws and regulations of those countries and all applicable export/import regulations; (d) none of the Licensed Applications contains any obscene, offensive or other materials that are prohibited or restricted under the laws or regulations of any of the countries You designate under Section 2.1 of this Schedule 1; (e) all information You provide using the App Store Connect tool, including any information relating to the Licensed Applications, is accurate and that, if any such information ceases to be accurate, You will promptly update it to be accurate using the App Store Connect tool; and (f) in the event a dispute arises over the content of Your Licensed Applications or use of Your intellectual property on the App Store, You agree to permit Apple to share your contact information with the party filing such dispute and to follow Apple’s app dispute process on a non-exclusive basis and without any party waiving its legal rights.

4.2 You shall use the software rating tool set forth on App Store Connect to supply information regarding each of the Licensed Applications delivered by You for marketing and fulfillment by Apple through the App Store under this Schedule 1 in order to assign a rating to each such Licensed Application. For purposes of assigning a rating to each of the Licensed Applications, You shall use Your best efforts to provide correct and complete information about the content of that Licensed Application with the software rating tool. You acknowledge and agree that Apple is relying on: (i) Your good faith and diligence in accurately and completely providing the requested information for each Licensed Application; and (ii) Your representations and warranties in Section 4.1 hereof, in making that Licensed Application available for download by end-users in each of the countries You designate hereunder. Furthermore, You authorize Apple to correct the rating of any Licensed Application of Yours that has been assigned an incorrect rating; and You agree to any such corrected rating.

4.3 In the event that any country You designate hereunder requires the approval of, or rating of, any Licensed Application by any government or industry regulatory agency as a condition for the distribution and/or use of that Licensed Application, You acknowledge and agree that Apple may elect not to make that Licensed Application available for download by end-users in that country from any App Store.

5. Responsibility and Liability

5.1 Apple shall have no responsibility for the installation and/or use of any of the Licensed Applications by any end-user. You shall be solely responsible for any and all product warranties,

end-user assistance and product support with respect to each of the Licensed Applications.

5.2 You shall be solely responsible for, and Apple shall have no responsibility or liability whatsoever with respect to, any and all claims, suits, liabilities, losses, damages, costs and expenses arising from, or attributable to, the Licensed Applications and/or the use of those Licensed Applications by any end-user, including, but not limited to: (i) claims of breach of warranty, whether specified in the EULA or established under applicable law; (ii) product liability claims; and (iii) claims that any of the Licensed Applications and/or the end-user's possession or use of those Licensed Applications infringes the copyright or other intellectual property rights of any third party.

6. Termination

6.1 This Schedule 1, and all of Apple's obligations hereunder, shall terminate upon the expiration or termination of the Agreement.

6.2 In the event that You no longer have the legal right to distribute the Licensed Applications, or to authorize Apple to allow access to those Licensed Applications by end-users, in accordance with this Schedule 1, You shall promptly notify Apple and withdraw those Licensed Applications from the App Store using the tools provided on the App Store Connect site; provided, however, that such withdrawal by You under this Section 6.2 shall not relieve You of any of Your obligations to Apple under this Schedule 1, or any liability to Apple and/or any end-user with respect to those Licensed Applications.

6.3 Apple reserves the right to cease marketing, offering, and allowing download by end-users of the Licensed Applications at any time, with or without cause, by providing notice of termination to You. Without limiting the generality of this Section 6.3, You acknowledge that Apple may cease allowing download by end-users of some or all of the Licensed Applications, or take other interim measures in Apple's sole discretion, if Apple reasonably believes that: (i) those Licensed Applications are not authorized for export to one or more of the countries designated by You under Section 2.1 hereof, in accordance with the Export Administration Regulations; (ii) those Licensed Applications and/or any end-user's possession and/or use of those Licensed Applications, infringe patent, copyright, trademark, trade secret or other intellectual property rights of any third party; (iii) the distribution and/or use of those Licensed Applications violates any applicable law in any country You designate under Section 2.1 of this Schedule 1; or (iv) You have violated the terms of the Agreement, this Schedule 1, or other documentation including without limitation the iOS App Review Guidelines. An election by Apple to cease allowing download of any Licensed Applications, pursuant to this Section 6.3, shall not relieve You of Your obligations under this Schedule 1.

6.4 You may withdraw any or all of the Licensed Applications from the App Store, at any time, and for any reason, by using the tools provided on the App Store Connect site, except that, with respect to Your end-users, You hereby authorize and instruct Apple to fulfill sections 1.2(b), (c), and (d) of this Schedule 1, which shall survive termination or expiration of the Agreement unless You indicate otherwise pursuant to sections 4.1 and 6.2 of this Schedule 1.

7. Legal Consequences

The relationship between You and Apple established by this Schedule 1 may have important legal consequences for You. You acknowledge and agree that it is Your responsibility to consult with Your legal advisors with respect to Your legal obligations hereunder.

EXHIBIT A
(to Schedule 1)

1. Apple as Agent

You appoint Apple Canada, Inc. ("Apple Canada") as Your agent for the marketing and end-user download of the Licensed Applications by end-users located in the following country:

Canada

You appoint Apple Pty Limited ("APL") as Your agent for the marketing and end-user download of the Licensed Applications by end-users located in the following countries:

Australia
New Zealand

You appoint Apple Inc. as Your agent pursuant to California Civil Code §§ 2295 *et seq.* for the marketing and end-user download of the Licensed Applications by end-users located in the following countries, as updated from time to time via the App Store Connect site:

Argentina	Cayman Islands	Guatemala	St. Kitts & Nevis
Anguilla	Chile	Honduras	St. Lucia
Antigua & Barbuda	Colombia	Jamaica	St. Vincent & The Grenadines
Bahamas	Costa Rica	Mexico	Suriname
Barbados	Dominica	Montserrat	Trinidad & Tobago
Belize	Dominican Republic	Nicaragua	Turks & Caicos
Bermuda	Ecuador	Panama	Uruguay
Bolivia	El Salvador	Paraguay	Venezuela
Brazil	Grenada	Peru	United States
British Virgin Islands	Guyana		

You appoint iTunes KK as Your agent pursuant to Article 643 of the Japanese Civil Code for the marketing and end-user download of the Licensed Applications by end-users located in the following country:

Japan

2. Apple as Commissionaire

You appoint Apple Distribution International as Your commissionaire for the marketing and end-user download of the Licensed Applications by end-users located in the following countries, as updated from time to time via the App Store Connect site. For the purposes of this Agreement, "commissionaire" means an agent who purports to act on his own behalf and concludes agreements in his own name but acts on behalf of other persons, as generally recognized in many Civil Law legal systems.

Albania	France	Madagascar	Senegal
Algeria	Gambia	Malawi	Seychelles
Angola	Germany	Malaysia	Sierra Leone
Armenia	Ghana	Mali	Singapore

Austria	Greece	Malta, Republic of	Slovakia
Azerbaijan	Guinea-Bissau	Mauritania	Slovenia
Bahrain	Hong Kong	Mauritius	Solomon Islands
Belarus	Hungary	Micronesia (Federated States of)	South Africa
Belgium	Iceland	Moldova	Spain
Benin	India	Mongolia	Sri Lanka
Bhutan	Indonesia	Namibia	Swaziland
Botswana	Ireland	Nepal	Sweden
Brunei	Israel	Netherlands	Switzerland
Bulgaria	Italy	Niger	Taiwan
Burkina-Faso	Jordan	Nigeria	Tajikistan
Cambodia	Kazakhstan	Norway	Tanzania
Cape Verde	Kenya	Oman	Thailand
Chad	Korea	Pakistan	Tunisia
China	Kuwait	Palau	Turkey
Congo (Republic of)	Kyrgyzstan	Papua New Guinea	Turkmenistan
Croatia	Laos	Philippines	UAE
Cyprus	Latvia	Poland	Uganda
Czech Republic	Lebanon	Portugal	Ukraine
Denmark	Liberia	Sao Tome e Principe	United Kingdom
Egypt	Lithuania	Qatar	Uzbekistan
Estonia	Luxembourg	Romania	Vietnam
Fiji	Macau	Russia	Yemen
Finland	Macedonia	Saudi Arabia	Zimbabwe

EXHIBIT B
(to Schedule 1)
Instructions for Minimum Terms of Developer's
End-User License Agreement

- 1. Acknowledgement:** You and the end-user must acknowledge that the EULA is concluded between You and the end-user only, and not with Apple, and You, not Apple, are solely responsible for the Licensed Application and the content thereof. The EULA may not provide for usage rules for Licensed Applications that are in conflict with, the App Store Terms of Service as of the Effective Date (which You acknowledge You have had the opportunity to review).
- 2. Scope of License:** The license granted to the end-user for the Licensed Application must be limited to a non-transferable license to use the Licensed Application on any Apple-branded Products that the end-user owns or controls and as permitted by the Usage Rules set forth in the App Store Terms of Service, except that such Licensed Application may be accessed, acquired, and used by other accounts associated with the purchaser via Family Sharing or volume purchasing.
- 3. Maintenance and Support:** You must be solely responsible for providing any maintenance and support services with respect to the Licensed Application, as specified in the EULA, or as required under applicable law. You and the end-user must acknowledge that Apple has no obligation whatsoever to furnish any maintenance and support services with respect to the Licensed Application.
- 4. Warranty:** You must be solely responsible for any product warranties, whether express or implied by law, to the extent not effectively disclaimed. The EULA must provide that, in the event of any failure of the Licensed Application to conform to any applicable warranty, the end-user may notify Apple, and Apple will refund the purchase price for the Licensed Application to that end-user; and that, to the maximum extent permitted by applicable law, Apple will have no other warranty obligation whatsoever with respect to the Licensed Application, and any other claims, losses, liabilities, damages, costs or expenses attributable to any failure to conform to any warranty will be Your sole responsibility.
- 5. Product Claims:** You and the end-user must acknowledge that You, not Apple, are responsible for addressing any claims of the end-user or any third party relating to the Licensed Application or the end-user's possession and/or use of that Licensed Application, including, but not limited to: (i) product liability claims; (ii) any claim that the Licensed Application fails to conform to any applicable legal or regulatory requirement; and (iii) claims arising under consumer protection or similar legislation. The EULA may not limit Your liability to the end-user beyond what is permitted by applicable law.
- 6. Intellectual Property Rights:** You and the end-user must acknowledge that, in the event of any third party claim that the Licensed Application or the end-user's possession and use of that Licensed Application infringes that third party's intellectual property rights, You, not Apple, will be solely responsible for the investigation, defense, settlement and discharge of any such intellectual property infringement claim.
- 7. Legal Compliance:** The end-user must represent and warrant that (i) he/she is not located in a country that is subject to a U.S. Government embargo, or that has been designated by the U.S. Government as a "terrorist supporting" country; and (ii) he/she is not listed on any U.S. Government list of prohibited or restricted parties.
- 8. Developer Name and Address:** You must state in the EULA Your name and address,

and the contact information (telephone number; E-mail address) to which any end-user questions, complaints or claims with respect to the Licensed Application should be directed.

9. Third Party Terms of Agreement: You must state in the EULA that the end-user must comply with applicable third party terms of agreement when using Your Application, e.g., if You have a VoIP application, then the end-user must not be in violation of their wireless data service agreement when using Your Application.

10. Third Party Beneficiary: You and the end-user must acknowledge and agree that Apple, and Apple's subsidiaries, are third party beneficiaries of the EULA, and that, upon the end-user's acceptance of the terms and conditions of the EULA, Apple will have the right (and will be deemed to have accepted the right) to enforce the EULA against the end-user as a third party beneficiary thereof.

EXHIBIT C
(to Schedule 1)
App Store Promo Code Terms

Notwithstanding any other provisions of the Agreement or this Schedule 1, You hereby agree that the following terms shall apply to all promotional Custom Codes requested by You via the App Store Connect tool. For the purposes of this Exhibit C, “You” shall include additional members of Your App Store Connect team (e.g. individuals in the marketing and technical roles).

Except as otherwise expressed in writing herein, nothing in this Exhibit C shall be construed to modify the Agreement or this Schedule 1 in any way, and all capitalized terms not defined below shall have the meanings set forth in the Program Agreement.

1. DEFINITIONS:

“Holder” means an individual located in a Territory to whom You provide one or more Custom Codes;

“Custom Code” means a unique alphanumeric code generated and provided to You by Apple pursuant to this Exhibit C which allows a Holder who is an App Store customer to download or access for free from the App Store the Licensed Application for which You have requested such code via the App Store Connect tool, whether offered for free or for a fee on the App Store (the “Promo Content”); and

“Effective Period” means the period between the Custom Code Activation Date and the Custom Code Expiration Date.

2. AUTHORIZATION AND OBLIGATIONS: You hereby authorize and instruct Apple to provide You with Custom Codes upon request, pursuant to the terms of this Exhibit C, and You take full responsibility for ensuring that any team member that requests such codes shall abide by the terms of this Exhibit C. You shall be responsible for securing all necessary licenses and permissions relating to use of the Custom Codes and the Licensed Application, including any uses by You of the name(s) or other indicia of the Licensed Application, or name(s) or likenesses of the person(s) performing or otherwise featured in the Licensed Application, in any advertising, marketing, or other promotional materials, in any and all media. Apple reserves the right to request and receive copies of such licenses and permissions from You, at any time, during the Effective Period.

3. NO PAYMENT: Except for Your obligations set forth in Section 10 of this Exhibit C, You are not obligated to pay Apple any commission for the Custom Codes.

4. DELIVERY: Upon request by You via the App Store Connect tool, Apple shall provide the Custom Codes electronically to You via App Store Connect, email, or other method as may be indicated by Apple.

5. CUSTOM CODE ACTIVATION DATE: Custom Codes will become active for use by Holders upon delivery to You.

6. CUSTOM CODE EXPIRATION DATE: All unused Custom Codes, whether or not applied to an Apple ID, expire at midnight 11:59 PT on the earlier of: (a) the date that is twenty-eight (28) days after the delivery of the Custom Codes; or (b) the termination of the Agreement.

7. PERMITTED USE: You may distribute the Custom Codes until that date which is ten (10) calendar days prior to the Custom Code Expiration Date solely for the purpose of offering

instances of the app for media review or promotional purposes. You may not distribute the Custom Codes to Holders in any Territory in which You are not permitted to sell or distribute Your Licensed Application.

8. ADDITIONAL MATERIALS: Apple shall not be responsible for developing and producing any materials in relation to the Custom Codes other than the Custom Codes themselves.

9. REPRESENTATIONS, WARRANTIES, AND INDEMNIFICATION: You represent and warrant that: (i) You own or control all rights necessary to make the grant of rights, licenses, and permissions listed in Section 2, and that the exercise of such rights, licenses, and permissions shall not violate or infringe the rights of any third party, and (ii) any use of the Custom Codes shall be in accordance with the terms of this Exhibit C and shall not infringe any third party rights or violate any applicable laws, directives, rules, and regulations of any governmental authority in the Territory or anywhere else in the world. You agree to indemnify and hold Apple, its subsidiaries and affiliates (and their respective directors, officers, and employees) harmless from all losses, liabilities, damages, or expenses (including reasonable attorneys' fees and costs) resulting from any claims, demands, actions, or other proceedings arising from a breach of the representations and warranties set forth in this Section, or a breach of any other term of the Agreement and this Schedule 1.

10. PAYMENT WAIVER: You hereby waive any right to collect any royalties, proceeds, or remuneration for the distribution and download of the Licensed Application via the Custom Codes, regardless of whether any remuneration would otherwise be payable under the Agreement, including Schedule 1 thereto, if applicable. The parties acknowledge that, as between Apple and You, the parties' respective responsibilities for the payment of any royalties or other similar payments to third parties with respect to distribution and download of the Licensed Application via the Custom Codes shall be as set forth in the Agreement.

11. TERMS AND CONDITIONS: You further agree to the following terms:

(a) You shall not sell the Custom Codes or accept any form of payment, trade-in-kind, or other compensation in connection with the distribution of the Custom Codes and You shall prohibit third parties from doing so.

(b) Nothing in this Exhibit C shall cause the parties to become partners, joint venturers or co-owners, nor shall either party constitute an agent, employee, or representative of the other, or empower the other party to act for, bind, or otherwise create or assume any obligation on its behalf, in connection with any transaction under this Exhibit C; provided, however, that nothing in this Section 11(b) shall affect, impair, or modify either of the Parties' respective rights and obligations, including the agency or commissionaire relationship between them under Schedules 1, 2, and 3 of the Agreement.

(c) You shall prominently disclose any content age restrictions or warnings legally required in the Territories and ensure that Custom Codes are distributed only to persons of an age appropriate and consistent with the App Store rating for the associated Licensed Application.

(d) You shall conduct Yourself in an honest and ethical manner and shall not make any statement, orally or in writing, or do any act or engage in any activity that is obscene, unlawful, or encourages unlawful or dangerous conduct, or that may disparage, denigrate, or be detrimental to Apple or its business.

(e) Apple shall not be responsible for providing any technical or customer support to You or Holders above what Apple provides to standard or ordinary App Store users.

(f) You agree to the additional Custom Code Terms and Conditions attached hereto as Attachment 1.

(g) YOU SHALL INCLUDE THE COUNTRY SPECIFIC CODE USER TERMS AS WELL AS THE EXPIRATION DATE OF THE CUSTOM CODE ON ANY INSTRUMENT USED TO DISTRIBUTE THE CUSTOM CODE TO HOLDERS (E.G. CERTIFICATE, CARD, EMAIL, ETC). YOU SHALL RECEIVE AN EMAIL WITH THIS INFORMATION LOCALIZED FOR EACH TERRITORY UPON REQUESTING THE CUSTOM CODES IN THE APP STORE CONNECT TOOL.

Code expires on [date] and is redeemable only on the App Store for [territory]. Requires an iTunes account, subject to prior acceptance of license and usage terms. Compatible software and hardware, and internet access (fees may apply) required. Not for resale. Full terms apply; see [www.apple.com/legal/internet-services/us/terms.html]. For more information, see www.apple.com/support/ In-app purchases sold separately. This app is provided to You by [Developer's name].

(h) You shall be solely responsible for Your use of the Custom Codes, including any use by other members of Your App Store Connect team, and for any loss or liability to You or Apple therefrom.

(i) In the event Your Licensed Application is removed from the App Store for any reason, You agree to cease distribution of the Custom Codes and that Apple may deactivate such Custom Codes.

(j) You agree that Apple shall have the right to deactivate the Custom Codes, even if already delivered to Holders, in the event You violate any of the terms of this Exhibit C, the Agreement, or Schedules 1, 2, or 3 thereto.

(k) You may distribute the Custom Codes within the Territories, but agree that You shall not export any Custom Code for use outside the Territories nor represent that You have the right or ability to do so. Risk of loss and transfer of title for the Custom Codes pass to You upon delivery to You within App Store Connect, via email, or other method provided by Apple.

12. APPLE TRADEMARKS: Your use of Apple trademarks in connection with the Custom Codes is limited only to "iTunes" and "App Store" (the "Marks") subject to the following and any additional guidelines Apple may issue from time to time:

(a) You may use the Marks only during the Effective Period

(b) You shall submit any advertising, marketing, promotional or other materials, in any and all media now known or hereinafter invented, incorporating the Marks to Apple prior to use for written approval. Any such materials not expressly approved in writing by Apple shall be deemed disapproved by Apple.

(c) You may only use the Marks in a referential manner and may not use the Marks as the most prominent visual element in any materials. Your company name, trademark(s), or service mark(s) should be significantly larger than any reverence to the Marks.

(d) You may not directly or indirectly suggest Apple's sponsorship, affiliation, or endorsement of You, Your Licensed Applications, or any promotional activities for which You are requesting the Custom Codes.

(e) You acknowledge that the Marks are the exclusive property of Apple and agree not to claim any right, title, or interest in or to the Marks or at any time challenge or attack Apple's rights in the Marks. Any goodwill resulting from Your use of the Marks shall inure solely to the benefit of Apple and shall not create any right, title, or interest for You in the Marks.

13. GOVERNING LAW: Any litigation or other dispute resolution between You and Apple arising out of or relating to this Exhibit C or facts relating thereto shall be governed by Section 14.10 of the Agreement.

Attachment 1
(to Exhibit C of Schedule 1)
Custom Code Terms and Conditions

1. All Custom Codes delivered pursuant to this Exhibit C, whether or not applied to an App Store account, expire as indicated in this Exhibit C.
2. Custom Codes, and unused balances, are not redeemable for cash and cannot be returned for a cash refund, exchanged, or used to purchase any other merchandise, or provide allowances or iTunes Gifts by either You or Holder. This includes Custom Codes that have expired unused.
3. Custom Codes may only be redeemed through the App Store in the Territory, open only to persons in the Territory with a valid Apple ID. Not all App Store products may be available in all Territories. Internet access (fees may apply), the latest version of iTunes software, and other compatible software and hardware are required.
4. Access to, redemption of Custom Codes on, or purchases from, and use of products purchased on, the App Store, are subject to acceptance of its Terms of Service presented at the time of redemption or purchase, and found at <http://www.apple.com/legal/itunes/ww/>.
5. Latest version of iTunes software required to access the App Store, and can be downloaded at no charge at www.apple.com/itunes/download/. Use of iTunes software is subject to acceptance of its software license agreement presented at the time of installation. The minimum system requirements for running the software are available at www.apple.com/itunes/download/.
6. Custom Codes will be placed in the Holder's applicable iTunes account and are not transferable.
7. If a Holder's order exceeds the amount available on the Custom Codes, Holder must establish an iTunes Store Purchaser account and pay for the balance with a credit card.
8. Except as stated otherwise, data collection and use are subject to Apple's Privacy Policy, which can be found at <http://www.apple.com/legal/privacy>.
9. Apple is not responsible for lost or stolen Custom Codes. If Holders have any questions, they may visit Apple's iTunes Store Purchaser Service at www.apple.com/support/itunes/.
10. Apple reserves the right to close Holder accounts and request alternative forms of payment if Custom Codes are fraudulently obtained or used on the App Store.
11. APPLE AND ITS LICENSEES, AFFILIATES, AND LICENSORS MAKE NO WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO CUSTOM CODES OR THE APP STORE, INCLUDING WITHOUT LIMITATION, ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN THE EVENT A CUSTOM CODE IS NON-FUNCTIONAL, HOLDER'S OR COMPANY'S SOLE REMEDY, AND APPLE'S SOLE LIABILITY, SHALL BE THE REPLACEMENT OF SUCH CUSTOM CODE. THESE LIMITATIONS MAY NOT APPLY. CERTAIN LOCAL AND TERRITORY LAWS DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES OR THE EXCLUSION OR LIMITATION OF CERTAIN DAMAGES. IF THESE LAWS APPLY, SOME OR ALL OF THE ABOVE DISCLAIMERS, EXCLUSIONS, OR LIMITATIONS MAY NOT APPLY, AND YOU OR HOLDER MAY ALSO HAVE ADDITIONAL RIGHTS.

12. Apple reserves the right to change any of the terms and conditions set forth in this Attachment 1 from time to time without notice.

13. Any part of these terms and conditions may be void where prohibited or restricted by law.

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